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**AN EXPLORATORY STUDY OF A LEADERSHIP STYLE AND
COMMUNICATION STYLE MEASURE FOR A SAMPLE
OF MEN AND WOMEN ELEMENTARY SCHOOL
PRINCIPALS IN NORTH CAROLINA**

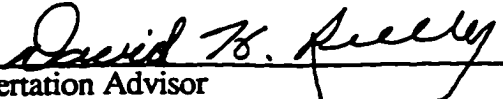
by

Daniel B. Watkins

**A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education**

**Greensboro
1996**

Approved by


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WATKINS, DANIEL B., Ed.D. An Exploratory Study of a Leadership Style and Communication Style Measure for a Sample of Men and Women Elementary School Principals in North Carolina. (1996). Directed by Dr. David H. Reilly. 178 pp.

The purpose of this study was to: 1) conduct exploratory psychometric and statistical analyses of self rating measures of leadership (LEAD-Self) and communicator style (CSM) using a sample of male and female elementary school principals ($N=251$) and 2) determine any significant sex differences in responses to the two measures. Demographic data were collected to supplement the analyses.

The results showed that there were no differences between the men and women on the LEAD-Self leadership categories. Men and women equally chose the selling and participating styles. Also, no sex differences were obtained for the leadership adaptability scores from the LEAD-Self.

On the communication style measure women showed significantly higher mean scores on the subscales of: Friendly, Animated/Expressive, Open, Dominant, and Attentive. Similar gender differences have been reported in previous studies except for the Dominant difference, where men have usually been higher. Factor analyses of the CSM subscales by sex showed remarkable similarities between the factors and Norton's (1983) subscales. A comparison of the factors for men and women showed strong similarities. The CSM items for men and women loaded on ten factors almost the same as Norton's (1983) eleven subscales with the exception of the Animated/Expressive and Dramatic subscales. These subscales loaded on a single factor for men and women. The items for the Attentive and Precise subscales loaded on a single factor for men but on different factors for women.

A stepwise multiple regression analysis showed that although statistically significant only a small percentage of the variance in the CSM subscales was accounted for

by the demographic experience variables. Of the demographic variables sex was the most significant predictor of CSM scores.

The ipsative characteristics of the LEAD-Self prevented any direct statistical comparisons and "links" to the Communication Style variables. The use of the LEAD-Self for comparative research is questioned. The results show that the CSM is a sound instrument for research and training purposes. Subtle differences in men and women's communication styles should not be excluded from future research on leadership and communication style.

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APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of
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CHAPTER I

INTRODUCTION

Overview

The most popular and frequently used leadership theories and measurement instruments have a long history. The original Leader Behavior Description Questionnaire dates from 1957 (Hemphill & Coons, 1957) and a later version, the LBDQ-XII, was published in 1963 (Stogdill, 1963). Hersey and Blanchard proposed their original Life Cycle Theory in 1969. Blake and Mouton proposed their Managerial Grid Theory in 1964. Fiedler's contingency theory using the Least Preferred Co-Worker (LPC) scale was proposed in 1967. House's Path Goal Theory was first proposed in 1971. The concept of "leadership style" was implied or directly discussed in the theories. The instruments to measure leadership style either were developed with the theories or came soon after. However, most of the popular leadership style measures, especially Hersey and Blanchard's and Blake and Mouton's, have had little or no adequate psychometric analyses. Some exceptions to this are the factor analytic studies of the LBDQ and LBDQ-XII, SBDQ, Leader Opinion Questionnaire (LOQ), and Fielder's LPC scale.

Bass (1990) indicates that Blake and Mouton are the best known of the leadership model builders who prescribe both task and relations orientations as the one best way to achieve effective leadership. Bass (1990) indicates that Hersey and Blanchard's (1988) Tri-Dimensional model has had widespread appeal to practicing managers and to leaders of management training programs despite theoretical problems and the fact that its reliability and validity remain in doubt.

In addition to the lack of a good research data base and psychometric data, leadership style instruments were primarily developed on men and by men. Psychometric and factor analytic differences by sex have not been adequately examined (Bass, 1981, 1990; Shakeshaft, 1989). Although many of the measures have been updated, adequate validity and reliability are lacking and as Bass (1990, pp. 845-846) has noted, "even small changes in instruments may lead to large changes in outcomes."

Many organizational development interventions, change efforts, leadership training programs, and self assessments are based on instruments that were developed with a particular leadership model in mind (Blake & McCauley, 1991; Fiedler, 1967; Hersey & Blanchard, 1988; Tannenbaum & Schmidt, 1958). With such important individual and organizational decisions being placed on the results of these measures, it would be important that their psychometric properties be explored, especially as they might relate to the responses of women managers/leaders and any sex differences. Implications of any differences for leadership training and practice should receive a thorough discussion.

According to Tetraault, Schriesheim, and Neider (1988) since 1964 over 400,000 employees have attended Managerial Grid Seminars with only one (questionable) study supporting the positive results of the Grid training. They report the evidence suggests that the Managerial Grid and Situational Leadership (Hersey & Blanchard, 1988) models "suffer from having little or no theoretical or empirical support" (p. 79).

The importance of competence in communicating as being important in attempts and successes in leading has been discussed by Bass (1990). However, there is, as yet, no adequate model that links leadership or leadership style to communication or vice versa. Communication style and competency measures have fared better in the literature in trying to address the psychometric properties of the measures. But, these measures are old and initially date back to the late 1970's (Wiemann, 1977) and early 1980's (Snavely &

Walters, 1983). It is still the case, however, that some of the better known communication style and competency assessment instruments have psychometric inadequacies (Ganster, Petelle, Baker, Dallinger, & Backus, 1981; Norton, 1983; Rubin, 1985).

The intent of this research was to conduct an exploratory study using various statistical analyses of the item and scale responses of a self report leadership style measure and of a communication style measure. A systematic random sample of North Carolina male and female elementary school principals was used as subjects. The leadership style measure used was Hersey and Blanchard's (1988) LEAD-Self assessment instrument and the communication style measure was the Communicator Style Measure (CSM) (Norton, 1983).

Statement of the Problem

There have been a plethora of leadership style measures associated with the most popular leadership theories. These include Blake and Mouton's (1978) Managerial Grid, Fiedler's Least Preferred Co-worker Scale, the LBDQ and LBDQ-XII, SBDQ and Leader Opinion Questionnaire, and Hersey and Blanchard's LEAD instruments, to name a few. Typically the two components of leadership style that are the most identified by factor analytic studies are consideration and initiating structure or a "task" versus a more "social relations approach."

Criticisms of the leadership style measures are that they lack adequate psychometric support such as good reliability and validity data (Bass, 1981; Immegart, 1988). There have also been criticisms that the leading leadership style measures were developed primarily on men and by men and thus may not be appropriate for use by women managers and leaders, and even biased against their unique style of leading and managing (Helgesen, 1990; Shakeshaft, 1989; Shakeshaft, Nowell, & Perry, 1991).

In addition to methodological and instrumentation problems the leadership research has often presented a confusing or contradictory set of findings depending on whose theory or model the researcher was using (Adams & Yoder, 1985; Bass, 1990; Boyan, 1988; Eagly & Johnson, 1990; Dansereau, Graen, & Haga, 1975; Hampton, Summer, & Weber, 1987; Hersey & Blanchard, 1988; Pondy, 1989; Powell, 1988; Shakeshaft, 1989). Typically, leadership style and leadership have been defined differently based on different theories and models (Adams & Yoder, 1985; Bass, 1990; Hersey & Blanchard, 1988; Immegart, 1988; Klauss & Bass, 1982). This has caused confusion in interpreting and synthesizing the research findings and generalizing the results to different populations and situations.

Along with the diversity of models and theories have come a diversity of methods to assess leadership style and behavior. However, if the theories are based on instrumentation that is questionable psychometrically, then the theory and research based upon the instrument is suspect. In addition, if there are real leadership style differences between men and women this would have obvious and serious implications for the findings of previous research.

Communication researchers have also developed a variety of theories on leader communication (Dansereau et al., 1975; Dansereau & Markham, 1987; Jablin, 1985), interpersonal communication (Knapp & Miller, 1985), organizational communication (Goldhaber, 1985; Jablin, Putnam, Roberts, & Porter, 1987), instruments and measures of communication style (Norton, 1983), communication competence (Schrader, 1990; Wiemann, 1977), and communication satisfaction (Downs & Hazen, 1977). There have been several communication competency assessment instruments developed in addition to those mentioned above. These include the Communication Competency Assessment Instrument and the Communication Competency Self Report measures (Rubin, 1985).

Communication Apprehension has also been the focus of communication researchers using the PRCA-24 scale (McCroskey, 1982) and Snyder's (1974) Self Monitoring Scale of Expressive Behavior.

Communication science measurements still suffer from some of the same methodological criticisms and inadequate psychometric data as do the leadership measures. However, on the whole, and especially with Norton's Communication Style Measure, there appears to have been more of an attempt to obtain adequate factor analytic constructs and psychometric analyses with the communication instruments than with the leadership measures.

In the communication style area the research suggests that social role stereotypes can influence perceptions and produce different behavioral responses and responses on various self-report measures, producing significant group sex differences (Bartol & Martin, 1986; Eagly & Johnson, 1990; Eagly, 1987; Lipps, 1988; Pearson, Turner, & Todd-Mancillas, 1991; Powell, 1988). This is also true of current leadership style studies, especially if they include women in the data base. However, there have been several studies in both the leadership area and in the communication area that have shown no or few sex differences between men and women leaders, managers, and administrators (Bass, 1990; Eagly & Johnson, 1990; Eagly, 1987). Clearly, what has not been examined thoroughly or sufficiently enough are the psychometric properties of the measures. An exploration of the nature and extent of sex differences in responses to these instruments and what implications any such differences might have for instrument use and interpretation is also needed.

Purpose

The purposes of this study were to: 1) conduct exploratory psychometric and statistical analyses of item and subscale scores on a self rating measure of leadership style

and a self rating measure of communication style using a sample of male and female elementary school principals in North Carolina, and 2) determine any statistically significant sex differences in responses to the leadership and communication style measures. Demographic data were also collected to determine its statistical importance on instrument responses.

Hypotheses

This was an exploratory study of a leadership style and a communication style instrument to determine the psychometric and statistical characteristics of the instruments and to determine the extent of any significant sex differences in responses. For example, factor analyses were conducted to determine if previously identified constructs were mediated by gender. In addition, internal consistency reliability and other appropriate statistical characteristics of the two instruments were examined by sex. The demographic information collected was examined to determine if the demographic variables produce consistent statistical results by sex.

Conceptual Base

Communication is one of the important components of leadership and management. Thousands of research studies have been conducted on leadership, leadership style, and on communication style (Bass, 1990; Eagly & Johnson, 1990; Pearson et al., 1991; Powell, 1988). In the communication science area the research has mainly examined communication in organizations, interpersonal communication, and more recently, gender differences in communication style (Dansereau & Markham, 1987; Jablin, 1985; Pearson et al., 1991; Penley, Alexander, Jernigan, & Henwood, 1991; Penley & Hawkins, 1985; Powell, 1988; Seibold, Cantrill, & Meyers, 1985).

One of the earliest leadership researchers and writers, Chester I. Barnard (1938) indicated that one of the essential functions of the executive is to provide for the system of communication. Hoy and Miskel (1987), Luthans and Larsen (1986), Luthans, Rosenkrantz, and Hennessey (1985), Penley and Hawkins (1985), and Shakeshaft (1989) have indicated that studies have shown that superintendents, principals, and managers spend a great majority of their time communicating, especially with personnel outside their own department and organization. Hoy and Miskel (1987) and Shakeshaft (1989) indicate that school principals and superintendents spend as much as 70 percent of their time communicating. Mintzberg's (1973) ten essential managerial roles include five that are directly communication related: liaison, monitor, disseminator, spokesperson, and negotiator. Penley and Hawkins (1985) and Penley et al. (1991) have shown the importance of and relationship of communication skills to the content of communication and managerial leadership. However, Shakeshaft asserts that, "very little research has been undertaken to document differences in male and female school administrators' written and spoken communication" (1989, p. 184).

Communication Science has researched areas similar to those studied in the leadership literature (power, affiliation, exchange theory, and attributional theory). Klauss and Bass (1982) have studied interpersonal communication in organizations as well as leadership. They indicate that "much of leadership behavior is covered by communication style" (Klauss & Bass, 1982, p. 161). In addition, Klauss and Bass (1982) have said:

Leadership is influence. Influence requires communication. Leadership requires effective communication. Despite the connection there is a surprising dearth of field or laboratory research on the linkages between leadership and communication behavior. Little has been done to describe the specific ways that particular communication styles relate to particular differences in leadership styles, even though, conceptually, various leadership styles have frequently been defined in terms of communication behavior i.e. Hersey and Blanchard's "Telling," "Selling," "Participating," and "Delegating." (p. 4)

Leadership is one of the most studied of all the topics in the social sciences. It would be rare to see a text on organizational behavior that did not have a chapter on leadership. The same can be said of communication. When examining the area of leadership research over the last 20 to 30 years it is apparent that there are different models and theories that have been developed to explain leadership or some aspect of leadership behavior or "style" (Bass, 1990). Bass (1990), in his update to Stogdill's Handbook of Leadership (1981), classifies the leadership theories and models into the following categories: Leadership as Contingent Reinforcement in a social exchange, Leadership in groups, power models of leadership, trait or personal characteristics models, Fiedler's contingency Theory, Reinforcement Exchange theory of Bass, Yukl's Multiple Linkage Model, Exchange Theories (The Vertical Dyad Linkage Approach), Task versus relations oriented theories such as Blake and Mouton's Managerial Grid Theory, the Hersey-Blanchard Situational Model of Leadership, Vroom and Yetton's Deductive Model, and House's Path Goal Theory. Hampton et al. (1987) discuss many of the same popular models but with somewhat different names: Fiedler's Contingency Model, Vroom and Yetton's Leadership-Group decision making model and The Life Cycle Model (Hersey and Blanchard's Situational model). Hersey and Blanchard (1988) discuss some other models or "quasi" models which include: The Ohio State Studies Model (LBDQ), Likert's four Management Systems, and Tannenbaum and Schmidt's continuum of leader behavior.

The kinds of research that have been done (in general categories) and the instruments developed to measure leadership style in each of the theories differ considerably. Also, many of the leadership theories deal directly or indirectly with communication (Hersey & Blanchard, 1988). However, communication or communication categories do not appear to be directly measured as a construct in the leadership instruments. The instruments tend to examine general outcomes and behaviors (decision

making), effects, perceptions, attitudes, and subordinate satisfaction. Pondy (1989) has called leadership a "language game" and stated that current leadership theories are too limiting that the language of the leader is almost unbounded in the way it can creatively be used to influence. Since the late 1970's, with Bradley and Baird's (1977) study of Management and Communication Style: A Correlational Analysis, communication scientists have increasingly begun to study the language of leaders, including content, tone, nonverbal language, and vertical and horizontal communication (Pearson et al., 1991; Powell, 1988; Pruett, 1989).

The communication science researchers have also studied such topics as argumentativeness and gender, orality and literacy in narrative gender differences, the folk linguistics of women's speech, female managers' perceptions of their own training needs in the communication skills areas, and interruptions in task oriented conversations by males and females. The Vertical Dyad Linkage Model of leadership has also been used in several communication studies (Dansereau et al., 1975). This leadership model is discussed in articles in the Handbook of Interpersonal Communication (Knapp & Miller, 1985) and in the Handbook of Organizational Communication (Jablin et al., 1987). Eagly (1987) and Eagly and Johnson (1990) have postulated sex differences in social behavior, including leadership, as a function of differing social roles. Bartol and Martin (1986) and Eagly and Karau (1991) have examined the leadership/ communication similarities and differences in task groups by sex. Some of the conclusions based on the literature they reviewed on leadership in leaderless groups and in groups with designated leaders are:

1. In mixed-sex leaderless groups females frequently take a more passive role towards leadership and may engage in more expressive behaviors at the expense of instrumental or task behaviors.
2. Females are more active in engaging leadership in

same sex than in mixed sex leaderless groups.

3. Males tend to resist leadership by females in leaderless groups and to a lesser degree in designated-leader situations.
4. Females have a more difficult time achieving social inclusion in mixed sex leaderless groups if they attempt to actively engage in leadership behaviors.
5. The behaviors of both males and females are influenced by the gender ratios in task groups.
6. Females and males behave similarly in designated-leadership situations.

In summarizing communication style sex differences Bartol and Martin (1986) conclude:

1. Males talk more than females in mixed sex groups.
2. Females tend to use more words that imply feelings, auxiliary words, negations, evaluative adjectives, interpretations, psychological state verbs, and purposive cases.
3. Males use more terms referring to time, space, quantity, destructive action, perceptual attributes, and more objective cases.
4. Males tend to be more assertive and give more directions while females are more tentative, supportive, and are more likely to make requests.
5. The use of qualifying phrases leads to negative effects only when used by females. Females who use tag questions (Don't you think?) or disclaimers (I'm no expert), had lower influence and were perceived as having low intelligence and little knowledge.

6. The use of stereotypical speech strategies had adverse effects for females but not for males.
7. Communication patterns are affected by the gender makeup of the group.
8. Females may be more adept at recognizing the nonverbal cues of emotion than males.
9. Females may tend to speak in a more deferent manner than males in task situations or may be perceived as doing so because of gender stereotypes.

Thayer (1988) has pointed out communication scholars have given little attention to leadership and leadership scholars have for the most part given even less attention to communication. A handbook of leadership has been published (Bass, 1990) as well as a Handbook of Interpersonal Communication (Knapp & Miller, 1985) and a Handbook of Organizational Communication (Jablin et al., 1987). Both of these communication handbooks include chapters that deal with aspects of managerial communication. What is problematic is that one important area, educational communication or communication by educational administrators in educational organizations, is missing from the discussions.

In terms of Leadership measurement, Eagly and Johnson (1990) found that the most frequently used leadership measurement instrument was the Leader Behavior Description Questionnaire (LBDQ). Also, the setting and subjects most used in their meta-analytic study was educational. Bass (1990) confirms that the LBDQ and Fiedler's least preferred co-worker (LPC) instruments have dominated research in leadership over the past 40 years.

In terms of communication style measurement (Briggs, Creech, & Buss, 1980; McCroskey, 1982; Norton, 1983; Rubin, 1985; Schrader, 1990; Snyder, 1974; Wiemann,

1977), there have been developed many different measures of communication, both written and spoken. In general the research literature appears to show more of a concern by communication researchers with the psychometric properties of their scales (Gregson, 1990; Levin & McCroskey, 1990; Rubin, 1985). However, many of these communication instruments suffer from some of the same deficiencies as the leadership measures.

Another very serious problem is that there have been few studies that specifically tried to integrate or link the research findings in the areas of leadership style, communication style, and gender (Penley & Hawkins, 1985; Penley et al., 1991; Shakeshaft, 1989). The diversity of leadership style and leadership competence instruments used for research has complicated any integration of the research within the leadership area, especially among leadership, communication, and sex variables. Penley and Hawkins (1985) and Penley et al. (1991) have made some serious attempts to link communication and communication style with leadership or managerial/supervisory behavior or "style."

Gender and sex differences have become a very important issue and research topic in business, educational administration, and communication science fields in the last fifteen years (Eagly & Johnson, 1990; Helgesen, 1990; Loden, 1985; Ortiz & Marshall, 1988; Shakeshaft, 1989; Shakeshaft et al., 1991). Issues such as sexual harassment, leadership by women, entrance into higher management levels and differential pay for men and women have kept this issue in the forefront of discussion and research. Increasing numbers of women, in the last ten to twenty years, have been moving into the world of work and the ranks of management, politics, leadership, and educational administration (Bass, 1990; Shakeshaft, 1989; Shakeshaft et al., 1991). This has resulted in numerous studies examining sex differences in leadership style. There has also been an increase in popular books for women advocating that women's leadership style is actually the better

one for today's society, changing organizations, and changing world (Aburdene & Naisbitt, 1992; Dalton, 1991; Helgesen, 1990; Loden, 1985; Rosner, 1990; Shakeshaft, 1989; Shakeshaft et al., 1991).

The importance of psychometrically adequate leadership and communication style research measures can be deduced from the above discussion because both areas of leadership style and communication style use self assessment instruments to measure their theoretical constructs. Bond (1981) has noted the importance of constructs by stating:

constructs are the building blocks of science: a science advances precisely to the extent that its constructs are accurately measured and their interrelationships are sufficiently well known to explain observable phenomena. (pp. 56-57)

Bond (1981) concludes, "the need for accurate unbiased assessment in a democratic society is necessary and beneficial for all" (p. 507).

Shephard (1981) also discusses the importance of test validity, fairness, and bias. She notes that increasingly in the literature the concept of test validity is being expanded to include wider moral concepts of fairness and whether or not this construct should be measured (ethical issues). She asserts that "Clearly, however, the soundness of any test depends on both logical demonstrations of relevance and empirical confirmation that indeed the test measures as intended" (Shephard, 1981, pp. 81-82). Critical and important research conclusions, training implications, self attributions, and placement implications are being based on research using those instruments, many of which do not have adequate psychometric and statistical studies to support their use and interpretations deduced from them. These problems call into question many of the findings of past research in both the areas of leadership style and communication style.

Bass (1981) pointed out that "we need to be conscious about the serious limitations in our measurements" (p. 602). Bass (1990) also discusses the same methodological

issues of measurement in his revised handbook of leadership. He states, "concentrated efforts with measures other than the most popular ones are needed, particularly if they can be joined in a nomothetic network with the well-used instruments" (1990, p. 886). Bass (1990) also indicates that "Fiedler's Least Preferred Co-worker (LPC) scale and some form of the Leader Behavior Description Questionnaire (LBDQ) have dominated research on leadership in the past 40 years" (p. 885). Bass (1990) further indicates there is a bias in the LBDQ that needs to be addressed in future research and that "research on the various assessment methods employed and their integration into decisions about 'assesses' need to be studied further" (p. 910). Bass (1990) further argues for more sophisticated instruments with higher validity and for multiple measures and methods that might be associated with leadership (Bass, 1990). In terms of self assessment instruments Bass also states that "leaders' perceptions, attributions, cognitions, and opinions will continue to be of considerable research importance as a link to what leaders actually do" (Bass, 1990, p. 890). He points out that some theoretical models may fit certain data better because each "theoretical view is supported by a different array of measurements" (Bass, 1990, p. 914). In essence, one of the things Bass feels is needed is better measurements.

The LBDQ-XII and Fiedler's Least Preferred Co-Worker are two of the few leadership style measurement instruments that have had factor analytic and other psychometric research that has confirmed the existence of the factors of consideration and initiating structure in leadership style. However, there has been a lack of equivalence between the LBDQ and other similar instruments. A study by Miller (1973) found the two main factors of consideration and the initiation of structure, but also found support for subfactors that could be categorized under the two higher order factors of consideration and initiation structure. How other leadership style instruments would look psychometrically

and in factor studies with other related measures such as communication competence or communication style is not yet clearly understood.

To summarize, four serious criticisms that have been directed at leadership style measures and communication style instruments are:

(1) There are not adequate psychometric results using statistical analysis techniques such as factor analysis to confirm factors, constructs or major components of leadership and communication style in most of the theoretical models. This includes construct validity and reliability. Methodological and measurement issues and their implications remain largely unresolved by measurement researchers (Eagly & Johnson, 1990; Shakeshaft, 1989).

(2) The existing leadership style instruments were developed by males and the initial research done on males thus calling into question the appropriateness of the measures for females.

(3) Possible sex differences in leadership and communication style and the implications of such differences has not been adequately explored in the literature.

(4) The integration or linkages between leadership style (behavior) and communication style (behavior) have not been adequately researched.

The present study seeks to address these criticisms by obtaining psychometric and statistical data on a self report leadership and communication style instrument, along with important demographic data for a sample of men and women elementary school principals.

Significance and Importance of this Research

This research will explore statistical and psychometric data and any linkages between the leadership style measure, the communication style measure, and demographic data for men and women elementary school principals. It will thus add needed normative

data on men and women elementary school principals as well as explore any sex and other group differences that may exist in the measures used. It should provide information that will help researchers in the future to improve, discard, or at least understand in what ways and in what contexts the measures can be used appropriately (if at all). This study should also help provide data to make crucial decisions about the perceptions of leadership and communication style for instrument development, use, and interpretation.

This research will help fill in some of the gaps with methodological problems in both the areas of leadership and communication style research (Bass, 1981, 1990; Immegart, 1988; Shakeshaft, 1989). Specifically, as Immegart (1988) has stated, "problems are related to the results that can be obtained from the use of the instruments, item content, and often the nature and stage of development of the instrument" (p. 270). This study should add to the knowledge about the instruments used, especially their psychometric and statistical characteristics.

Specifically, this study will allow for comparisons with some other psychometric and factorial studies of leadership (Bass, 1990; Blank, Weitzel, & Green, 1990; Charters & Pitner, 1986; Markham & Scott, 1983; Nediger & Chelladurai, 1989; Norton, 1983; Pitner, 1988b; Shouksmith, 1983; Stewart & Latham, 1986) and with similar analytic communication studies (Bass, 1981, 1990; Ganster et al., 1981; Gregson, 1990; Levin & McCroskey, 1990; Norton, 1983; Pruett, 1989; Rubin, 1985; Schrader, 1990; Staley & Cohen, 1988; Wiemann, 1977).

This study adds a communication style measure along with the leadership style measure which follows from Immegart's (1988) and Bass's (1990) recommendations that the number of variables investigated in leadership studies needed to be broadened and that four sets of variables, (1) personal characteristics of the leader, (2) behavior or patterns of behavior-style, (3) the situation-context task and environment, and (4) outcomes-

performance or effects, need to be examined. This study would fit into the first of Immegart's sets.

Immegart (1988) and Bass (1990) also recommend that more complex analytic techniques be used in the study of leadership and that more attention be given to variations and exceptions. The use of elementary school principals who are "in the field" fits into another of Immegart's recommendations for future research needs, in using subjects who are actual leaders. This study may also stimulate similar studies that compare educational leaders and administrators with business and industry managers and leaders. Comparisons could be made allowing for any differences in the psychometric properties of assessment instruments used on the two groups. Subsequent discussion of the implications such differences might have for leadership performance in different work contexts would be important.

This research should also allow for more exploration of possible sex differences in statistical results and psychometric data to determine if there are quantitative as well as self perceived behavioral and qualitative differences as discussed by Bartol and Martin (1986), Eagly and Johnson (1990), Helgeson (1990), Loden (1985), Pearson et al. (1991), Powell (1988), and Shakeshaft (1989).

Definitions

Important terms used in this study will be defined as follows:

Communication Style - The way one verbally, nonverbally, and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, and understood in terms of nine independent variables and one dependent variable. The independent variables (constructs) are Dominant, Dramatic, Precise, Contentious, Animated, Impression Leaving, Relaxed, Open, and Friendly. The dependent variable, also a subconstruct, is Communicator Image. "I am a good communicator" (Norton, 1983, p.

58). Klauss and Bass (1982) concluded that "much of leadership behavior is covered by communication style" (p. 161).

Leadership Style - The leadership style of an individual is the behavior pattern that a person exhibits when attempting to influence the activities of others as perceived by these others. A person's leadership style involves some combination of task behavior and relationship behavior. When the style of a leader is appropriate to a given situation it is termed effective; when the style is inappropriate to a given situation it is termed ineffective. Effectiveness is also how appropriate it is to a given situation as seen by the followers, superiors, or associates. Effective leaders adapt their leader behavior to meet the individual needs of their followers and the particular environment (Hersey & Blanchard, 1988).

Sex - Is simply the biological sex of the individual and not gender which has been defined as "the learned behaviors a culture associates with being male or female and a term used to designate psychological, social, and cultural aspects of maleness and femaleness" (Kessler & McKenna, 1978, p. 7). In the literature some authors use gender and sex to mean the same thing but it should be noted they are different. In this paper the terms gender and sex may at times be used interchangeably but it should be noted that when gender is used it refers to biological sex, unless otherwise specified.

Demographic Data

The demographic data collected is shown in the questionnaire presented in Appendix C. Ten questions were asked to obtain data on characteristics such as: "How many years have you been in education," "How many years have you been an elementary school principal," "What area of the state is your system in," Age Range, Race, and type of school (Urban, Rural, Inner City Urban).

CHAPTER II

REVIEW OF THE LITERATURE

Overview

The review of the literature will be divided into six subsections. These sections will examine current research relevant to the research focus and purposes in the following areas:

- I. PSYCHOMETRIC RESEARCH ON LEADERSHIP STYLE AND COMMUNICATION STYLE INSTRUMENTS.
- II. LEADERSHIP AND SEX DIFFERENCE RESEARCH.
- III. COMMUNICATION AND SEX DIFFERENCE RESEARCH.
- IV. LEADERSHIP STYLE, COMMUNICATION STYLE, AND SEX DIFFERENCES AMONG EDUCATORS.
- V. WOMEN'S RESEARCH AND THOUGHT ON LEADERSHIP STYLE, COMMUNICATION STYLE, AND SEX DIFFERENCES.
- VI. AN ATTEMPTED INTEGRATION OF LEADERSHIP STYLE, COMMUNICATION STYLE, AND SEX DIFFERENCES IN BUSINESS RESEARCH.

The research overlaps in many areas because of the nature of the constructs (Leadership Style and Communication Style) being studied. It should be clear that the leadership style and communication style findings are "murkey" at best. This may be due to the different leadership style theories (Bass, 1990), the different theories of Communication Style (Penley et al., 1991) and especially the varying instruments used to measure the important constructs and subconstructs in each theory.

Literally thousands of leadership studies have been conducted in the last 50 years. Many of these studies have used different theoretical models and measuring instruments and cannot be compared in their results. Five of these theories, the Situational or Life

Cycle Theory (Hersey & Blanchard, 1988); Contingency Theory (Fiedler, 1967); The Managerial Grid (Blake & Mouton, 1978); The Leader Member Exchange Model (Graen, Novak, & Sommerkamp, 1982), and the Decision Making Model designed by Vroom and Yetton (1973) are very diverse in their conceptualizations of what comprises effective leadership. There are some major inadequacies, limitations, and internal inconsistencies in these and other of the popular leadership theories. For example, Fiedler's theory has been disputed as not really fitting the data and thus being unreliable and not valid. Also, the theoretical meaning of Least Preferred Co-Worker and situational favorableness and the validity of the model continues to be disputed both empirically and theoretically (Bass, 1990).

In discussing Managerial Grid Theory, Bass (1990) stated that "a substantial number of investigations of the impact of task and relations orientation have been mixed and negative" (p. 485). However, Blake and Mouton are adamant about the 9,9 (Team Manager or leader) as being the most effective in all situations and that it has consistently contributed positively to a variety of positive performance criteria in organizational development studies. In a 1982 article Blake and Mouton continue to argue that eight kinds of interrelated evidence "lead to the conclusion that one best style is a sounder basis for the exercise of effective leadership training" (Blake & Mouton, 1982, p. 41).

Hersey and Blanchard's curvilinear model has been severely criticized "because of the lack of internal consistency of its measures, because of its conceptual contradictions and because of its conceptual ambiguities" (Bass, 1990, p. 492). Although Hersey and Blanchard's measurement instrument (LEAD) lacks the desired level of reliability and its validity is still in doubt, it is very appealing to practicing managers, leadership trainers, and leaders because of its simplicity and flexibility (Bass, 1990).

It is interesting that Blake and Mouton (1982) state:

This long standing controversy (about which model or theory of leadership is best) is no closer to resolution today even though behavioral scientists have conducted research, written scholarly treatises, and published numerous books on the subject. Professionals in the leadership field are still unable to agree among themselves. What does leadership science offer struggling practitioners or the searching organization? Mostly confusion, doubt, and contradiction instead of evidence, assurances and applications. (p. 21)

There has not been an adequate integration of leadership research from different disciplines on issues such as "style," traits, situations, transactions, exchanges, gender linked language effects, communication styles, and social role theory to adequately address leadership style, communication style, and gender differences as part of a complex conglomerate of important interrelated constructs. This appears to be especially true in the area of public school administration/leadership (Immegart, 1988; Ortiz & Marshall, 1988; Shakeshaft, 1989). This is very important when one considers that schools and businesses have important cultural differences that influence and interact with both leadership style and communication style. Benedetti (1975), Sarason (1982), Goodlad (1984), Jackson (1968), and Campbell (1986) have discussed these significant differences between business organizations and educational organizations.

I. Psychometric Research Studies on Leadership and Communication Style Instruments

Shakeshaft (1989) reported that Fiedler conducted a study in 1961 that produced results showing:

sex differences seemed to have a consistent effect upon interpersonal perception. Females perceived significant persons in their environment in a less differentiated and in a more favorable manner than did males. (Shakeshaft, 1989, p. 155)

Since Fiedler identified high LPC leaders as being more concerned with people, and as perceiving their co-workers in favorable positive terms, it is surprising that he did not specifically discuss sex as an important variable in his research.

Shakeshaft also indicates that all theories in educational administration suffer from this one sided male bias and that she could have used many other leadership theories to illustrate the concept of androcentric biasing in her discussion of leadership. One of the categories for examining androcentric bias is "measurement" with three questions she feels should be asked of the instrumentation before conducting research:

1. Are sex-neutral scales or measures used?
2. Have scales been validated on both sexes?
3. Is nonsexist language used? (p. 152)

Shakeshaft (1989) concludes that:

even when subsequent research has tried to account for the effects of gender, the findings and interpretations were tainted by the androcentrism of the primary research. Surveys and instruments used in a study of the Educational Administration Quarterly were often biased. The bias fell into four categories: maintenance of traditional roles, failure to measure aspects of a construct that might relate to women's concerns or perceptions, direct transfer of instruments from a predominantly male field to a predominantly female field and exclusion of female experience from the study. (p. 162)

Ortiz and Marshall (1988) echo these views. Immegart (1988) indicates that in the study of leadership and leader behavior the problems in methodology range from those of theory conceptualization and study design to those of instrumentation, precise variables, varying subjects and approaches to the analyses of data. Immegart also discusses problems with instrumentation and indicates that many other reviews have documented problems here. Particularly, "Such problems are related to the results that can be obtained from the use of the instruments, item content and often the nature and stage of development of the instruments" (Immegart, 1988, p. 270). Immegart (1988) notes that Stogdill's new version of the LBDQ, the LBDQ-12 has different item content for initiating structure and that the results of its use are "more consistent with other lines of inquiry and with logic" (p. 270). Immegart summarizes that "the problems with other well used instruments are

documented both in other reviews and in lines of inquiry where they have been employed" (p. 270). Immegart also indicates that more sophisticated methods of data analysis need to be used to examine variations and exceptions.

Some of the more frequently used measures of leadership style, the LPC of Fiedler and the LBDQ (Hemphill & Coons, 1957) and the LBDQ-XII (Stogdill, 1963) have had extensive psychometric study. According to Bass "a good deal of evidence is available concerning the internal consistency and stability of the LPC but its validity remains a complex question" (1990, p. 495). In five studies, Rice (1979), using the new 18 item task structure items found coefficient alphas of .90, .91, .79, .84, and .89. Concerning the construct validity there have been many inconsistent study results. It is now felt that the LPC may be a measure of an orientation toward work, as an attitude, as a cognitive complexity measure, or as an index of hierarchy of goals. Whether the LPC is measuring different degrees of task orientation and relations orientation is still being disputed.

The LBDQ (Hemphill, 1950; Hemphill & Coons, 1957) was developed so that responses to items were scored according to one of five alternatives to indicate the amount or frequency of the leaders behaviors that were being rated. These ratings were then summed and added in combination to form subscales on the basis of the similarity of their content. The subscale totals were intercorrelated and then factor analyzed. The two factors that appeared were "Consideration" and "Initiation of Structure." The LBDQ consisted of 40 statements to measure these two factors. An industrial version, the Supervisory Behavior Description Questionnaire (SBDQ) and a shorter LBDQ named the LBDQ-XII (Stogdill, 1963) have also been developed. Schriesheim and Kerr (1974) reviewed the psychometric properties of the LBDQ and the SBDQ and indicated that the scales maintained the high internal consistency that was the basis of their construction. However, other studies indicated that the LBDQ scales left much to be desired psychometrically.

They suffered from a variety of response set errors, such as leniency and social desirability, as well as a response set to agree rather than to disagree and it was not really known whether they were valid measures of consideration and initiation of structure. Also, the original scales were criticized for missing many behaviors that leaders perform.

Because of this the LBDQ-XII added a variety of additional factor derived scales, possibly lacking complete independence from structuring and consideration (leadership dimensions) (Bass, 1990). Factor validation has produced conflicting and mixed results. According to Bass (1990, p. 507) "several factor analyses were conducted including one using the LBDQ-XII." This factor analysis produced (for three separate locales) 8 factors of:

- General persuasion leadership
- Tolerance of uncertainty
- Tolerance of follower's freedom of action
- Representation of the group
- Influence of superiors
- Production emphasis
- Structuring expectations
- Retention of the leadership role

(Bass, 1990, p. 517)

In the same analysis of "Consideration," two distinct factors of consideration were extracted. In a complex factor analysis of the LBDQ and several similar scales, Miller (1973), using hierarchical and varimax rotation, found that the two factor solution clearly paralleled consideration and initiation of structure. Another finding was that consideration includes behavior that is ordinarily regarded as concern for the welfare of the subordinates, such as supportive behavior and sharing information, but it also appears linked to participative group decision making, to abdication and to delegation. Bass (1990) indicates that although factorially and conceptually independent, in the revised LBDQ-XII scales, the leader's tendencies to be considerate and to initiate structure were found to correlate with each other. Bass recommends looking at the LBDQ-XII in a multifactor manner since the

scales are differentially related to different dimensions of the satisfaction of members and performance of the group.

Vecchio (1987) used 303 teachers from 14 high schools to test several assumptions of the Hersey and Blanchard Situational Model (1988). He commented that "the popularly advocated measurement device for studying leader behavior (the LEAD) possesses unknown psychometric qualities" (p. 445). Vecchio did not use the LEAD instrument for this reason and substituted the LBDQ-XII. However, he did use Hambleton, Blanchard, and Hersey's (1977) measure of job and psychological maturity. Regression analyses, correlational analyses, and omnibus tests of mean differences on the criteria were conducted. No mention is made of using factor analysis or other psychometric tests on the scores the instruments produced.

In discussing Blake and Mouton's Managerial Grid (1964) and Hersey and Blanchard's Life Cycle Theory, no mention is made of factorial or psychometric studies with the Grid (Bass, 1990). Only one factorial analytic study of the Hersey and Blanchard model is discussed which lent little support to Hersey and Blanchard's model (Bass, 1990; Blank et al., 1990). In the Blank et al. (1990) study, however, substitute measures were used in place of the LEAD instrument developed by Hersey and Blanchard. One reason for this was that according to Vecchio (1987) the LBDQ-XII (Leadership Behavior Description Questionnaire) is a more widely accepted index of leader behavior than the Hersey and Blanchard LEAD instrument. In addition, Blank et al. (1990) developed new measures of job and psychological maturity because they stated that the Hambleton et al. (1977) maturity measure had psychometric problems of: containing only five items to measure each category of maturity, single items to measure achievement motivation and commitment, and the use of polar anchor descriptors with an 8 point scale that have questionable reliability and content validity. Factor analysis was used on the maturity

ratings by peer, self, and leader, in addition to using regression analysis and multivariate analysis of variance in the general study.

Blake and Mouton (1964) conducted a factor analysis of training group behavior on several supervisors but did not use their Grid instrument. The subjects were 160 male managers from different levels and different organizations. A varimax factor analysis was used to analyze the 11 training group scales which were completed 13 different times by the 169 persons in the five laboratory studies. The three factors that were identified using the centroid method and rotated to the normalized varimax criterion were: cohesion, accomplishment, and group development feedback.

Shouksmith (1983) examined the factor structure of the Least Preferred Co-Worker (LPC), Assumed Similarity of Opposites Scales and The Most Preferred Co-Worker scales using 272 subjects drawn from management and leadership training courses. The scores analyzed were from a 10 item measure of Fiedler's leadership style measure; the Least Preferred Co-worker scale and 10 items from the Most Preferred Co-Worker Scale (summed) scores and the Assumed Similarity of Opposites Profile Difference Measure. The factor analysis confirmed that the Least and Most Preferred Co-Worker scores reflect two distinct concepts. The Least Preferred Co-Worker scores were more complex factorially and involved only three factors. Shouksmith concludes that the Assumed Similarity of Opposites instrument can be discarded because it loads on the LPC scale and to a slight degree on the MPC. Also it "appears clear that of Fiedler's three measures the Least Preferred Co-Worker is confirmed as the most appropriate one to use" (Shouksmith, 1983, p. 258).

Stewart and Latham (1986) examined some of the psychometric properties of Fiedler's Contingency Model of Leadership in two studies, one using 182 civilian supervisory personnel at a large army installation (Study 1, 153 were male and 29 female)

and 40 executives representing 10 National Football League franchises (Study 2, all 40 were male). It is notable that the researchers indicate that:

The weakest link in the rather elaborate theory of leadership relates to its measurement problems. Fiedler seems to have paid scant attention to the development of the measurement scales that he used to test his theory. Little rationale is provided for the construction of the scales and the scoring criteria leave much to the imagination. (Stewart & Latham, 1986, p. 85)

The first study showed that the LPC loaded on three factors and the situational control measure loaded on six. There was no overlap between the two. The researchers suggest that Fiedler's LPC measure is a multifaceted one and that factorial structure of the scale indicates it may be more complex than has been previously accepted. They summarize that their study raises some fundamental questions concerning construct validity, alternative scoring methods, and interactions between item relations and organizations. They also state that "in their enthusiasm for the model itself, Fiedler and others have overlooked various fundamental problems of measurement" (Stewart & Latham, 1986, p. 92).

Markham and Scott (1983) conducted a component factor analysis of the initiating structure scale of the Leadership Behavior Description Questionnaire (LBDQ-XII) and found atypical results. They state that after an analysis of the results using 175 persons in a plastics plant, comparisons of the component factor matrices show using group oriented questions does not guarantee group oriented results. They recommend that future researchers be cautious in the instruments used and that:

The question format should be consistent with the conceptual level of analysis. Matched superior-subordinate reports would be comparatively advantageous. Between unit and within unit sources of variation should be controlled. (Markham & Scott, 1983, p. 77)

Factor analysis was also used in the analysis of the Management Behavior Survey (MBS) using school principals as respondents (Charters & Pitner, 1986). The factor

analysis showed that principal scores on the scales were substantially intercorrelated, with most coefficients above .50. Four (4) orthogonally specified common factors underlying the correlation matrix were identified. The first two seemed to represent the traditional distinction between (1) "task oriented" and (2) "person oriented leadership styles." The third appeared to reflect the principal's concern with affairs beyond the school and the fourth pointed to the principal's managerial efficiency. However, three major problems were found in the study in general: lack of response, interrater disagreement, and ceiling effects. The authors concluded that a more extensive revision of Yukl's (1981) MBS would make the instrument more useful for research in educational organizations (Charters & Pitner, 1986).

Pitner (1988a) conducted a study that examined the internal-consistency reliability and factorial validity of the Leadership Substitutes Questionnaire in an educational setting. The instrument was modified slightly to reflect school roles and tasks, measuring 13 contextual factors (i.e. characteristics of staff, teaching, and the organizational structure) known as leadership substitutes which are hypothesized to have an interaction effect in the relationship between hierarchical leader behaviors and subordinate performance and attitudes. Data were collected from teachers in Washington and Oregon ($N=450$) with 84 percent of the teachers being female. Internal consistency reliability estimates ranged from .60 to .85. Intercorrelations among the 10 subscales ranged from .00 to .30 with only five correlations exceeding .20. The low level of intercorrelation was interpreted as an indication of the distinctiveness of each factor and as an indication that scores on specific subscales should not be summed in order to create several higher order or general factors. The factor analysis did support 11 of the 13 factors in Kerr's (1977) original formulation and 10 reliable scales with alpha estimates greater than .60 were constructed. Pitner feels

that the Substitutes measure is useful for measuring contextual factors that potentially influence the effects of hierarchical leadership in educational organizations.

Communication style and communication competence measures also suffer from conceptual and methodological problems. However, Ganster et al. (1981) did find support for the feasibility of developing a semantic differential model of communicator style using Norton's Communicator Style Measure (1973). They found two major factors of "evaluative" and "dynamism" (Ganster et al., 1981). They also found that communication style variables did show strong relationships with important subordinate responses.

But, the relationships, moreover are not simple in that the effects of communicator style variables are clearly not additive. The findings of the present study would seem to argue in favor of the further development and exploration of this model. (Ganster et al., 1981, p. 19)

Norton (1983) indicates that there are some holes in the structural factor solution to his measurement subscales. Using "smallest space analysis" (multi-dimensional scaling) he identified four scales/styles that needed further improvement: the Relaxed style, the Attentive and Friendly styles, and the Open style subscales.

Lamude and Daniels (1984) found reliability results that were higher than those reported in Norton's (1978) research. However, they found some problems with the validity or concordance estimates. They did find that in female managed groups lower levels of concordance appeared to be related at least in part to subordinate gender.

In a meta analytic study of nine studies using the Norton Communication Style measure, Pruett (1989) reported reliabilities for the Norton subscales ranged from: dominant (.70 to .86), dramatic (.64 to .76), contentious (.60 to .81), animated (.56 to .69), impression leaving (.69 to .81), relaxed (.66 to .71), attentive (.57 to .73), open (.67 to .69), and friendly (.37 to .63) (Pruett, 1989).

Rubin (1985) indicates that conceptually the Communication Competence Assessment Inventory (CCAI) is a valid instrument. Rubin also found that students' grades and instructors' impressions correlated with the CCAI measure, adding to reification or convergent validity. Elaboration validity analysis discovered that argumentativeness was unrelated to CCAI scores. However, a relationship was found between knowledge and skill, lending credence to the notion that impressions formed about others' communication competence involve judgments of behavioral appropriateness of language and its variety and diversity as well as knowledge about the communication process.

Levin and McCroskey (1990), using a second order factor model, found that with the PRCA-24 (a frequently used measure of communication apprehension) the use of subscale scores should be considered only when required by "substantive considerations (such as selecting treatment modalities) since they exhibited lower reliabilities due to fewer items" (p. 70). The researcher also felt that the use of the second order factor model could account for the apparent instability evident in the results of exploratory factor analysis techniques. They also found that it was advisable in the future to use the second order factor analysis. In addition they identified 4 items to delete, reducing the scale to 20 items.

In a sample of 310 certified public accountants a modified version of the Job Description Index (JDI) and the Communication Satisfaction Questionnaire (CSQ) (Downs & Hazen, 1977) was used to determine by factor analysis if the constructs of communication satisfaction and job satisfaction were separate constructs. The JDI was modified into a Likert type scale and the CSQ was modified to be more understandable to accountants. A varimax orthogonal rotation was used to analyze the items jointly in order to ascertain whether the respondents viewed communication and job satisfaction to be separate constructs. The factor loadings confirmed that communication satisfaction and job satisfaction are separate constructs.

Section Summary

There have been serious conceptual, development, and instrumentation problems in the measurement of the constructs in question with both leadership instruments and with communication instruments. It does appear that proper instrumentation development and testing has been neglected. Serious questions have also been raised about using questionnaires and self assessment instruments rather than actually observing and recording behavior (verbal and nonverbal) as Luthans and Larsen (1986) and Mulac, Wiemann, Widemann, and Gibson (1988) have suggested. Although there may indeed be problems with self assessments, these problems could be due in part to the inadequate psychometric properties that are derived from the theoretical base for the instruments. Also as Bass (1990) indicates:

Training and research efforts will, over time, make greater use of superior's peers' and subordinates' ratings and less of leaders self-ratings of their purported behavior. But as, this will be discussed later, leaders' perceptions, attributions, cognitions and opinions will continue to be of considerable research importance as a link to what leaders actually do. (Bass, 1990, p. 890)

II. Leadership and Sex Difference Research

In light of the problems with many of the popular leadership theories and instruments it is still important to examine what the research appears to conclude about the relationship between leadership style and sex. It is possible that some of the differences in findings could be due to the different theories (and problems with them) or to the measurement instruments (and their problems).

Naisbitt and Aburdene (1990) and Aburdene and Naisbitt (1992) indicate that the 1990's will be the decade of women in leadership. They indicate that women might hold a slight advantage compared to men since they do not have to unlearn old authoritarian

behavior to run their departments or companies. They also indicate that women might possess a slight advantage over men in the people skills required of middle management.

In their meta-analysis Eagly and Johnson (1990) examined gender differences in leadership style in 162 studies pertaining to four types of leadership style: task vs. interpersonal relations (consideration vs. initiating structure) and autocratic vs. democratic (participative vs. directive leadership). Their review concluded that the widely accepted view by social scientists that women and men lead in the same way should be substantially revised. Also, they state that the view proclaimed in popular books on management, that male and female leaders have distinctive, gender stereotypic styles, also requires revision. They indicate that their review found a more complex set of findings. They summarize that they have established that leadership styles assessed in experimental lab settings do appear to be gender stereotypic and agree with other reviewers that male and female leaders differ. Somewhat smaller stereotypic sex differences were found in assessment studies in which people not selected for leadership roles responded to instruments assessing their leadership style. In real organizational settings with actual managers or leaders, women's leadership styles were more democratic and participative than men's directive and authoritarian leadership styles. The authors state that these differences may reflect underlying differences in female and male personality or skills, or be due to subtle differences in the status of women and men who occupy the same organizational role.

A meta-analytic study conducted by Ragins (1991) of 21 studies of subordinate evaluations of male and female leaders focused on the research setting and controlled for power variables. The results showed that expert and referent power had the strongest relationship to perceived leader effectiveness and that gender accounted for about only one percent of the variance, making it clear that subordinates' ratings of leader effectiveness were influenced more by the perception of the leader's power than by the leader's gender.

Ragins (1991) indicates that "research on leader gender and subordinate evaluations of leader effectiveness has produced inconsistent results" (p. 263). Ragins found gender effects in some of the 21 field studies but not in laboratory studies. These results are somewhat different from Eagly and Johnson's (1990) findings of significant leadership style results in laboratory and somewhat less in "field" leadership assessment studies. Ragins, commenting on the leadership effectiveness measures used in the 21 studies, indicates these instruments, which measure consideration and initiating structure, were problematic for research on gender effects. It was thought that the consideration dimension was more congruent with female sex role stereotypes while the initiating structure dimension was more gender-congruent with male sex role stereotypes. This could produce an interaction between sex role expectations and leader gender in evaluations of leader effectiveness and also in communication outcomes.

Harper and Hirokawa (1988) found three main results in a study using 46 female and 36 male managers:

1. When attempting to convince a subordinate to perform an obligatory action, male managers tend to rely most often on punishment based strategies, whereas female managers tend to rely most often on altruism based strategies.
2. When attempting to convince a subordinate to perform a non-obligatory action, there were few differences between male and female managers.
3. In attempting to convince a subordinate to perform either an obligatory or non-obligatory action, females were somewhat more likely than males to use different strategies when dealing with female and male subordinates. (pp. 154-166)

The authors state that "at the least, the outcomes . . . lend strong support to the position that such differences as may exist between males and females are situation bound" (p. 166). In general, when power is a legitimate source, males are more likely to use it than females. Moreover, females are seen to be more flexible, adapting their strategies to

the contingencies of the situation. Otherwise, males and females appear to be more similar than different (Harper & Hirokawa, 1988).

Rizzo and Mendez (1988) conducted a study that found that female managers employed fundamentally the same influence strategies to affect others (co-workers, supervisors, subordinates) but males used more assertive behavioral strategies than did females. Eagly and Karau (1991), in a meta-analytic study (75 studies) of gender and the emergence of leaders, found that sex differences in the emergence of leadership depended on the type of leadership setting measured and task required. Men emerged more than women on measures of general leadership as well as on task and unspecified measures that were the components of general leadership. Women emerged more frequently on measures of social relationships. Also, the findings indicated that men and women are not only treated differently in group settings but also behave differently. That is, the tendency to choose men over women as leaders may be due to perception differences in the purposes and goals of the group. It may well be that it is a conditioned social stereotype to define leadership in terms of task (male) contributions. The stereotype of women being more focused on interpersonal relations, morals, and cooperation may result in women being less likely to be selected as leaders. Eagly and Karau (1991) conclude that:

Women apparently have more chance of achieving leadership under certain circumstances - for example, with socially complex tasks, in longer term groups, in groups larger than dyads and with tasks requiring skills more commonly possessed by women than men. (Eagly does not describe what these skills are) (p. 705)

In a study by Goktepe and Schneier (1989) on the influence of sex, gender role characteristics, and interpersonal attractiveness on the selection of emergent leaders, sex did not predict leader emergence. However, regardless of sex, group members with masculine gender role characteristics emerged significantly more than those with feminine,

androgynous, or undifferentiated gender role characteristics. Emergent leaders received significantly higher interpersonal attractiveness ratings than nonleaders within groups.

Rizzo and Mendez (1988), Dobbins and Platz (1986), Adams and Yoder (1985), and Bass (1981) generally found no differences between the leadership behavior of males and females. In a review of 17 studies Dobbins and Platz (1986) indicate that male and female leaders exhibit equal amounts of initiating structure and consideration and have equally satisfied subordinates. Male leaders are rated as more effective than female leaders only in laboratory type studies. Adams and Yoder (1985) concluded that "the present studies reported in this volume have consistently failed to demonstrate biases in sex role stereotyping and sex differences among leaders" (p. 101). Similar to other studies, Adams and Yoder (1985) found that sex role stereotypes do initially affect both female leaders and male followers. They found that:

subordinates believed that female leaders had more concern for the welfare of the troops (consideration) but there were no differences in descriptions of initiation of structure by female and male platoon leaders. (p. 67)

In addition, they found that initially women cadets "of small stature and those who did not possess a 'command voice' were most frequently the targets of stereotyping and were assigned to less strenuous roles of team leaders" (Adams & Yoder, 1985, p. 73). This points out the importance of oral communication characteristics in initial leadership development.

Adams and Yoder (1985), Rizzo and Mendez (1988), and Bass (1981) report that time, experience, and good performance in leadership roles by women tend to mediate and wipe out sex role stereotyping by subordinates and superiors. Rizzo and Mendez (1988) indicate that "among practicing managers of both sexes, organizational socialization processes and long term exposure to female managers appear to erode sex stereotyped

attitudes" (p. 10). They also concluded that based on other studies it may be that "sex role orientation better predicts leadership style and, by extension, effectiveness than biological (sex)" (Rizzo & Mendez, 1988, p. 11). Bass (1981) makes the following conclusions based on his review of the gender and leadership research:

Contrary to what might be expected from what we have said so far about male-female socialization and trait differences, the preponderance of available evidence is that no consistently clear pattern of differences can be discerned in the supervisory style of female as compared to male leaders. . . . We have seen that women do differ from men on a wide variety of attributes associated with emergence as a leader, but the differences tend to blur if we contrast women and men who have already achieved status as leaders. Once legitimized as a leader, women actually do not behave differently from men. (pp. 499-500)

However, in his update to Stogdill's Handbook of Leadership (1990), Bass seems to equivocate somewhat, probably due to the contradictory nature of many of the more recent leadership-gender research findings. At one point he says that the studies reviewed found some tendencies for women leaders to be more relationship oriented than men but a larger body of evidence has failed to establish any consistent differences. Yet he concludes his chapter on "Women and Leadership" by stating:

Because situational changes are rapidly occurring for women in leadership roles, earlier research may need to be discounted. Despite the many continuing handicaps to movement into many positions of leadership owing to socialization, status conflicts, and stereotyping, progress is being made. Some consistent differences remain between boys and girls and less so, among adult men and women managers and leaders. Characteristics that are linked to masculinity are still demanded for effective management. Nevertheless, most differences in male and female leaders tend to be accounted for by other controllable or modifiable factors although women will continue to face conflicts in their decisions to play the roles of wives and mothers as well as of managers and leaders. (Bass, 1990, p. 737)

As he said in 1981, Bass continues to assert that:

Contrary to what may be expected from what has been said so far about male-female socialization and some of the differences uncovered in traits between the sexes, the preponderance of available evidence especially from field studies, is that

no consistently different pattern of differences can be discerned in the supervisory styles of male and female leaders. (Bass, 1990, p. 723)

Bass says that there have been studies that showed that men and women leaders did differ on some aspects of performance but he did not elaborate at length on this topic. Bass (1990) also reviews research that indicates that women leaders are better communicators than men, due mostly to differential socialization and sex differences in cultural stereotypes about communication skills.

Cullen and Perrewe's (1981) analysis of personal interview data from 1,946 persons employed by organizations in the United States supported the hypothesis that - gender pair/age or education interaction was not supported for any of the dependent variables. Contrary to popular explanations, the gender of supervisors and subordinates did not influence perceptions of supervisors' behaviors, even for older, less educated workers.

A study by Osborne and Vicars (1976) found no effects of superiors' gender on subordinate satisfaction, but they did not study actual behavior. The authors point out that it is possible, even though managers of both sexes are perceived to behave similarly, the same behaviors may evoke different affective, cognitive, or behavioral responses in subordinates. Their study supports an earlier finding that cultural stereotypes do not affect perceptions of superiors' behaviors in the work setting.

Winther and Green (1987) examined self-rated behavioral differences in terms of broad leadership styles. Using 40 males and 41 females who served in the role of leader they found that contrary to the popular stereotype of male leaders, in terms of language used, males preferred to use phrases that indicated a more social style than females. However, both male and female leaders used language that indicated a task oriented approach to a significantly greater degree when instructing a female rather than a male

subordinate. This study suggested it was inappropriate to use a stereotypic explanation of gender related differences across all situations which is similar to the conclusion reached by Osborne and Vicars (1976). These two views would be hotly contested by Eagly's social role theory in explaining sex differences (Eagly, 1987; Eagly & Karau, 1991). Essentially, Eagly's theory states:

the contemporaneous influences arising from adult social roles are more directly related to sex differences in adult social behavior than is prior socialization or biology. Social roles are regarded as the proximal predictor of adult sex differences although these roles may in turn be linked to other, more distal factors such as childhood socialization pressures and biological predispositions. (Eagly, 1987, p. 9)

In a study by Dobbins (1986) of male and female undergraduate leaders it was found that there were sex differences in the choice of corrective actions and responses to poorly performing subordinates. The cause of poor performance (internal or external) affected the corrective actions of both male and female leaders. The corrective actions of the female leaders were more affected by the likeableness of the subordinate than were the corrective actions of male leaders. Female leaders also responded less harshly toward female poorly performing subordinates, while male leaders responded equally toward male and female subordinates. However, this study could be termed a laboratory study and has generalizability problems as pointed out by Dobbins and Platz (1986).

In a study of university women ages 19-53, Russell, Rush, and Herd (1988) found that women on average thought an effective male leader would both exhibit essentially the same profile of leadership as effective women leaders. This included relatively high levels of role assumption, followed by initiating structure, consideration and finally production emphasis, with a female leader exhibiting higher levels of initiating structure and consideration than expected of a male leader. The researchers also found evidence

to suggest that there was more age/experience related variance in the expectations for the female leader than for the male leader, and that younger or less experienced women expected an effective female leader to exhibit higher levels of initiating structure, role assumption and production emphasis than did the older more experienced women. Interestingly, there was no evidence of age/experience related variance in the expected levels of consideration for a male or female leader, suggesting that the women irrespective of age/experience, agreed that a female leader should exhibit higher levels of consideration than a male leader. (Russell et al., 1988, pp. 284-285)

Discussions by researchers in this area suggest that there are no differences in the leadership style of men and women. "The preponderance of available evidence is that no consistently clear pattern of differences can be discerned in the supervisory style of female as compared to male leaders" (Bass, 1981, p. 499).

At the present time we really do not seem to understand how to deal with gender issues on the job. Research results about gender differences, although interesting have been inconclusive and varied. There is a voiced suspicion that sampling and other methodological problems may be contributing to the confusion. (Halterman, Dutkiewicz, & Halterman, 1991, p. 473)

"In general, comparative research indicates that there are few differences in the leadership styles of designated female and male leaders" (Bartol & Martin, 1986, p. 278). Schein (1989) indicates "the bulk of the evidence on managerial behaviors shows few differences between men and women" (p. 156). A study done by the Center for Creative Leadership (Morrison, White, & Van Velsor, 1987) concluded that "as individuals, executive women and men seem to be virtually identical psychologically, intellectually, and emotionally" (p. 18). In an analysis of gender stereotyping in the work place and of research on the differences between men and women managers Powell (1988) answers the question, Do female and male managers differ? by concluding that:

The research evidence answers, They differ in some ways and at some times, but for the most part, they do not differ. Sex differences have generally not been found in global measures of managerial behavior. We are left with little reason to believe

that either female managers or male managers are superior in executing, involving themselves in, or personally coping with the responsibilities of their job. (p. 165)

Speaking from a communication science point of view Pearson et al. (1991) indicate the "jury is still out" (p. 242) as to whether there are real differences in the management styles of men and women. Eagly and Johnson (1990), Eagly and Karau (1991), Helgesen (1990), Immegart (1988), Loden (1985), Ortiz and Marshall (1988), Schein (1989), and Shakeshaft (1989), based on their qualitative and quantitative research, would vehemently disagree with these conclusions of no sex differences in management styles.

Others have also argued that there are basic differences between men and women's communication (Conlin, 1989; Tannen, 1994), in how women managers learn and what they learn from both organizational and non-organizational experiences (Van Velsor & Hughes, 1990), in the different skills they bring to the work place (Taylor, 1984), and in general and specific leadership styles and skills (Rosner, 1990; Rosner, McAllister, & Stephens, 1990).

Section Summary

Whether or not there are differences in leadership "styles" or leader behavior between men and women still seems confusing and open to debate from several points of view. However, the research evidence does appear to be leaning toward the view that women do have a distinctive leadership style or at least are perceived so by subordinates compared to men (Tannen, 1994). In addition they may perform differently on the same job tasks or take a different approach or style of responding than men (Bass, 1990).

III. Communication and Sex Difference Research

Holt (1987) has stated that "communication is the essence of leading" (p. 474). Weik argues that "management of the eloquence of language is a key tool for effective

leadership" (Hampton et al., 1987, p. 581). In presenting 10 competencies for effective school principals, McCauley (1990) lists communication as one of the 10 and says that "effective principals communicate ideas clearly and frequently" (p. 10). Morris, Corwson, Porter-Geehrie, and Hurwitz (1984) found that principals spent about 50 percent of their time outside the main office and in face-to-face contact with teachers and students.

Communication style and interpersonal communication have been described as one of the most important and major components of leadership style (Bennis & Nanus, 1985; Dansereau & Markham, 1987; Hersey & Blanchard, 1988; Jablin, 1985; Norton, 1983; Peters & Austin, 1985). Most of the gender-leadership style studies and especially leadership theories look indirectly at the issue of communication differences, if they examine them at all. For example, in Hersey and Blanchard's leadership theory (1988), words associated with the four different leadership styles are: Telling, Selling, Encouraging, and Delegating. The problem is that there are many different ways of using language and nonverbal means to communicate these four categorical words or styles to subordinates. These words could also be interpreted differently by male and female subordinates as representing a different kind of leadership style than was intended.

Berryman-Fink (1985) surveyed 53 female and 48 male managers about which communication skills women possessed that helped promote their managerial effectiveness and for which specific communication skills women needed more training to develop effectiveness. Both male and female managers felt women possessed three communication skills necessary for effective management:

- Listening skills
- Verbal/writing skills
- Non-verbal communication skills

Both males and females listed the following areas in which women needed training:

Assertiveness
Confidence building
Public speaking
Dealing with males

The male managers listed three additional skills needed by women managers not listed by the female managers:

Attention to detail
Voice quality
Keeping the listener's attention

Female managers noted four training needs of women managers not listed by the male managers:

Enhancing credibility
Developing a professional attitude and appearance
Controlling emotions
Enhancing voice quality

Female managers perceived the need for 11 communication skills not listed by male managers: empathy/understanding, giving and accepting feedback, being open/receptive, responsive to others, being organized, relating to others, sensitivity, honesty/sincerity, flexibility, showing equality/humaneness, putting others at ease, and being personable.

There was also a difference in the training needs seen by both groups. This would suggest there are gender stereotyped self perceptions held by both men and women in the area of skills held, needed and training needed to improve skills in behavior and communication as a manager.

Bendelow (1981) identified masculine and feminine categories of behavior (some relating specifically to communication) of men and women in small group interactions as popularly defined in our culture (as typically masculine versus typically feminine). Some of these were:

Masculine Attributes

Intelligent
 Dominant
 Unemotional
 Enjoys arguing
 Generally initiates action

Feminine Attributes

Unintelligent
 Non-dominant
 Emotional
 Does not enjoy arguing
 Follows others lead

Sex differences on many communication variables have been described in the literature for years but usually describing general differences between men and women or focusing on a specific variable like who speaks more in a mixed work group. Some of these differences are discussed by Borisoff and Merrill (1992), Lipps (1988), Loden (1985), Pearson et al. (1991), Shakeshaft (1989), Tavris (1992), and Tear (1990). Specifically, Tavris and Tear make the following comparisons:

Tavris (1992, pp. 297-310)Men

Men use conversation "to preserve independence and negotiate and maintain status in a hierarchical status order."

Men's language is the language of the powerful. It is meant to be direct, clean, and succinct, as would be expected of those who need not fear giving offense.

Men assert and demand.

Women

Women use conversation as "a way of establishing connections and negotiating relationships."

Women's language developed as a way of surviving, even flourishing without control over economic, physical, or social reality. It is necessary to listen more than speak, agree more than confront, be delicate, be indirect, say dangerous things in such a way that the impact will be felt after the speaker is out of range of the hearer and retaliation.

Women learn to persuade and influence.

Women learn to anticipate what others want and need.

Women learn how to placate and soothe ruffled feelings. Women cultivate communication, cooperation, and attention to news and feelings about others.

Tavris - ContinuedMen

Women's language often appears illogical to men.

Women

Women are better able to do role switching.

In mixed dyads in discussing a topic on which they disagreed women spoke more tentatively than men only when speaking to men. With men they offered more disclaimers, used more hedges and moderating terms and used more tag questions that solicit agreement.

(Tear, 1990)

Conversation Style Sex Tendencies

ListeningMen

Irregular eye contact.

Infrequent head nodding.

Infrequent humming sounds.

Usually stops other activities.

Interrupts in order to speak.

Questions are designed to analyze speaker's information.

Women

Uninterrupted eye contact.

Frequent head nodding.

Frequent humming sounds.

May continue another activity.

Waits for pauses in order to speak.

Questions designed to elicit more information.

Speaking

Few pauses.

May abruptly change topics.

Speaks until interrupted.

Speaks louder than prior speaker.

Frequent use of I and me.

Frequent pauses.

Connects information to prior speaker's information.

Stops speaking when information is delivered.

Uses same volume as prior speaker.

Frequent use of us and we.

Tear - Continued

| <u>Men</u> | <u>Women</u> |
|---|--|
| Personal self-disclosure rarely included | Personal self-disclosure often included. |
| Humor delivered as separate jokes or anecdotes. | Humor interwoven into discussion content. |
| Humor often based on kidding or making fun of others. | Humor rarely based on kidding or making fun of others. |

It seems fairly accepted in the literature that the sexes differ on certain communication and language variables. Both empirical and popular literature continue to address the differences, and some (Helgesen, 1990; Loden, 1985; Shakeshaft, 1989; Shakeshaft et al., 1991; Taylor, 1984) even advocate that women's communication style is not only different but more effective than men's. The leadership style literature beginning around the 1980's also had strong adherents to the notion that men and women differed and that women's style was better (Aburdene & Naisbitt, 1992; Billard, 1992; Borisoff & Merrill, 1992; Helgesen, 1990; Loden, 1985; Shakeshaft, 1989; Shakeshaft et al., 1991).

Tear (1990) definitely sees communication differences between men and women in the areas of thinking, speaking, listening, and body language. She says that her 10 years of research in several disciplines has found definite gender differences. For example, she indicates that women use more intensifiers (very, outstanding, etc.) which are often interpreted that the woman is not really sure about the issue (which is often not the case). Women use more qualifiers (probably, perhaps, etc.) which are often interpreted as "hedging your bets." Women tend to use tag questions as a means of social bonding, not because of uncertainty (don't you agree, what do you think, etc.).

Baird and Bradley's (1979) study was one of the first to explore gender differences in communication styles of men and women in management positions. The data gathered from 150 subjects randomly selected from three organizations showed that male and female

managers differ in several dimensions of communicative behavior. However, while those differences initially seemed to suggest female managers supervise more effectively than male managers, the researchers cautioned that more research was needed before such a conclusion could definitely be made.

Baird and Bradley's (1979) sample of 69 males and 81 females was administered a work questionnaire. In the situations they studied females did not enact a male role but instead communicated in ways markedly different from the behaviors exhibited by male managers. In communication content, women statistically exceeded men in giving information, stressing interpersonal relationships, being receptive to ideas, and encouraging effort. Males generally exceeded females in dominance, being quick to challenge others (contentious), and directing the course of conversations while females scored higher on showing concern and being attentive to others. They found some support that the female style was more effective than the male managers but indicated this was not clearly conclusive. They indicated also that male and female managerial styles, although often different, typically are appropriate to the situation. It appeared that female managers were more concerned with "behavioral style" (Baird & Bradley, 1979, p. 111).

Rossi and Todd-Mancillas (1987) conducted a study of 40 male and 40 female middle and top managers in a moderately sized Midwestern city. Each manager read four scripts dealing with problems a manager might have with an employee. The managers' responses were recorded and read and assigned to three classifications: open communication, organizational power, and mixed approach. The results tended to give further support to Baird and Bradley's (1979) findings that women may be more openly communicative in their management style than men. Significant differences between male and female managers were seen when the managers attempted to resolve differences involving an ambiguously defined chain of command. Male employees were very much

inclined to use power as a means of resolving disputes with female managers but not with male employees. Female managers seemed equally divided in their preference in using communication and power strategies for both male and female employees. The male managers preferred to use power with female employees and communication strategies when dealing with male employees.

Norton (1983) suggests there is a sex difference in the "Dominant" communication subconstruct style variable of his Communicator Style Measurement instrument. He states,

males nonverbally signal dominance differently than females. Dominant males use personal space and rate of approach to indicate dominance; dominant females use reciprocal eye contact. (Norton, 1983, p. 65)

He also suggests that "style of interacting, with physical attractiveness (of males and females) may do different communicative work for males than females" (Norton, 1983, p. 226).

Montgomery and Norton (1981) addressed the question, Do men and women perceive differences in their own communication style? (on the 11 subscale variables of the Communication Style Measure: Impression leaving, contentious/ argumentative, open, dramatic, dominant, precise, relaxed, friendly, attentive, animated, and communicator image). The findings showed that male and female college students reported more similarities than differences. The differences that did emerge were that males reported themselves to be more precise while females reported themselves as being more animated. However, the subjects were students, not persons in actual leadership and management positions.

Most of the studies mentioned in the literature portray the leader as one who is "masculine," dominant, empathetic, assertive, and direct. However, a study by Smeltzer and Werbel (1986) found no gender differences in samples of written managerial

communication. The authors indicated that according to popular folk linguistics literature, women are more socio-emotional oriented while men are more task oriented. The researchers found no support for these claims of gender differences on any measure of the quality of the written samples. However, the lack of differences could have been due to the similarity of the communication skills and educational levels of the MBA student subjects.

Wheless and Berryman-Fink (1985) conducted a study using 98 males and 80 female employees of various organizations in a Mid Western area. Four different measurement scales were used. Female respondents reported more positive attitudes toward women managers than did male respondents. Female respondents also perceived greater communication competence of women managers than did male respondents. The results suggested that gender differences on the Positive Regard Scale toward women in general has some equivalence to attitudes on the specific issues of women's managerial suitability or communication ability. It was also found that men and women who had worked with or for a woman manager had more positive attitudes toward women in management than did subjects without work experience with women managers. An interrelationship was found among attitudes toward a group of individuals (women), attitudes toward those persons in a specific role (manager), and perceptions of behavior in that role (communication).

Lamude and Daniels (1990) did not find an interaction between superior and subordinate sex in subordinates' evaluations of superiors' communication competence in which male superiors were rated as more competent than female superiors primarily by female subordinates. Specifically, they found that female, not male subordinates rated superiors as more competent on communication competence. They also found that male subordinates were rated as more competent than female subordinates, but again, this was due to female superiors' ratings as the primary source of the difference.

Lamude and Daniels (1990) suggest several hypotheses to explain these findings that contradict previous research. They suggest that one reason might be in the instruments used and in the fact that the superiors and subordinates they studied had worked together for some time. Such familiarity may reduce sex-related evaluation bias. The authors were still unable to explain why female evaluators rated the communication competence of male "alters" in their relationships more highly than the communication competence of female "alters."

Stephen and Harrison (1985) studied 225 elementary and secondary teachers. The sample was predominantly female with only 17% male teachers. The BEM Sex Role Inventory and the Communication Styles Q-Set (CSQS) were used as measuring instruments. The results indicated that although there may be many behavioral differences between the sexes, the differences are difficult to summarize in terms of expressive and instrumental communication. While 42 of the CSQS items were correlated significantly with biological sex, the discriminate function analysis differentiating the sexes did not clearly reflect either instrumental or expressive styles. However, the discriminate function analysis between masculine and feminine gender identity produced behavioral profiles which were more closely indicative of instrumental and expressive behaviors. These profiles indicated that masculine instrumentality is closely associated with assertiveness and aggressiveness and feminine expressiveness is closely associated with sensitivity and concern for others. Androgynous individuals were also clearly differentiated from the feminine and the masculine identity profiles identified.

Borisoff and Merrill (1992) indicate that Maltz and Borker (1982) found several gender differences in the communication styles of women and men. Boys learn communication around competitiveness and dominance while girls learn conversation around affiliation and equality. However, as the number of collegial relationships

increased among men and women the research began to show that women and men employed similar communication strategies. According to Borisoff and Merrill (1992) the differences were in the interpretation of the style and relative power given to the speaker. Also, they indicate that the communication strategies of a good manager and stereotypical conceptions coincide. Studies have shown that men and women do not differ in trait argumentativeness (Borisoff & Merrill, 1992). Borisoff and Merrill (1992) assert that in spite of similarities in the communication strategies of women and men holding similar positions the stereotype of the male manager is defined by men and women as preferable in organizations.

Sex differences in communication are also clear in the "gender linked language effects" found by Mulac et al. (1988). In addition, the work of Gilligan (1982) suggests that men and women have different moral perspectives; men speak more from a voice of justice and women from a voice of care. These different cognitive perspectives could produce different ways of thinking, communicating, and behaving, especially in moral, leadership, and communication contexts.

In summary, Borisoff and Merrill (1992) indicate the research shows that men and women respond to the role of the manager. If the role had been traditionally based on a male paradigm then women and men managers have adapted their communication to fit the role. They emphasize that because more and more women are working along with men that many companies have instituted training programs in listening skills, consensus building, collaborating techniques, and empathic communication recognizing the important role that these stereotypically feminine styles of communication can play in organizational communication and effectiveness.

Section Summary

It appears clear from a majority of studies reviewed above and work done by Bartol and Martin (1986), Eagly (1987), Pearson et al. (1990), Stewart and Ting-Toomy (1987),

and Tannen (1990, 1994) that there are clear differences between men and women in communication styles and with other verbal and nonverbal communication behavior. These communication style differences appear to be the result of cultural, social, and stereotyping forces that begin early in life and continue into the workplace.

Communication gender differences produce clear differences in perceived managerial/leadership behavior. Whether these communication style differences produce sex differences in leadership effectiveness is not clear. It may be that stereotypes of men, women, and leader roles produce a differing perception of leadership effectiveness. It may also be that the longer men and women work together in leadership and subordinate positions the less they perceive communication and leadership differences. It may be that the job role (in leadership positions) provides the necessary information on the required communication and leader behavior. However, this job role is still thought of and perceived as typically masculine.

IV. Leadership Style, Communication Style, and Sex Differences Among Elementary Educators

Most of the gender-leadership style difference research until the 1970's and early 1980's was on men and women managers in business. As more women entered the business world they also began to emerge more (although very slowly) as administrators and principals in public schools and university settings (Jones & Montenegro, 1985). In business, for example, the number of self employed women grew from 1,475,000 in 1972 to 3,500,000 by 1984 (Halterman et al., 1991). Thus, gender-leadership style and communication style research began to appear more frequently using educators as subjects. It is still the case that there are considerably more male principals and administrators than female, although the numbers of female administrators is steadily increasing (Schwartz, 1992; Shakeshaft, 1989). The influence of sex role stereotypes for women and for men is

strong in public education. For economic and for gender stereotypical reasons the number of men going into public school teaching is few. Traditionally the path to more money has been through coaching and then into administrative positions (Bass, 1990; Black & English, 1986; Ortiz & Marshall, 1988; Shakeshaft, 1989). Now more women are seeking advanced degrees in education to achieve economic and career objectives in this field (Schwartz, 1992).

Since educational environments are significantly different from business and manufacturing environments and since it is still the case that there are more female elementary school teachers than men, it may be that there are sex differences in leadership styles and/or communication styles between male and female administrators. It may also be the case that subordinate satisfaction and effectiveness may vary when the principal is a male versus a female with predominantly all female staffs. Both Adams and Yoder (1985) and Bass (1981) report a few studies that show that sex role stereotypes held by subordinates can affect initial group productivity, effectiveness, and ratings of satisfaction. This is especially true when the leadership role is seen as traditionally "masculine" and filled by a female who may act contrary to the perceived traditional sex role stereotypes held by the subordinates. Bass (1990) reports that many women prefer working for a man. This is not true, however, for women at higher educational levels, younger college educated women, and undergraduate women students who indicated they were looking forward to working for a woman (Bass, 1990).

Araki (1982), in a large study of 226 public school principals in Hawaii (174 males and 74 females), found the women principals to be rated as more effective leaders in all 10 of the leadership characteristics measured. They were rated significantly higher on their general leadership, their supportive relationships, their capacity to foster teamwork, their familiarity with teacher problems, their ability to help teachers work smarter than harder,

and especially, their competence and ability to promote and maintain high standards and goals. However, the study did not focus on the reasons for the sex differences or on the numbers and types of verbal and nonverbal behavior between males and females. Staff perceptions of the communication styles and self perceptions of male and female principals were also not examined.

Smith (1982) found that female principals were perceived by their superintendents to be significantly higher than males in their stereotyped consideration behaviors, but no statistically significant difference was found between the superintendents perceptions of the initiating structure dimension of male and female principal's leadership behavior.

Serafini and Pearson (1984) studied a sample of 128 males and 88 females working as non-administrative supervisors and managers at a mid western university. Several of their findings are of significance. Specifically, they found that there was no correlation between biological sex and psychological masculinity and femininity nor between biological sex and consideration and initiating structure. Of special significance for this discussion are their major findings:

This study demonstrated that femininity is closely related to the consideration component of leadership style and that masculinity is related to the initiating structure dimension of leadership style. No difference occurred in the consideration component of leadership between feminine and androgynous persons, two groups which score high on femininity. Persons who score high on femininity, regardless of their score on masculinity, exhibit the consideration dimension of leadership. Similarly, initiating structure appears more highly related to masculinity than to femininity. (Serafini & Pearson, 1984, pp. 403-404)

Robson (1985) found significant discrepancies between the perceptions of administrators and teachers. Male and female administrators felt they were using effective leadership styles oriented to tasks and relationships. Teachers viewed these administrators as using leadership styles ineffectively and superficially. Teachers rated their male administrators as significantly more task oriented than female administrators. In addition,

Robson found that female administrators tended to perceive themselves as using more effective leadership styles oriented to high task and low relationship orientations.

Sims (1981), using the Hersey and Blanchard Situational Leadership Model, found that male and female elementary school principals perceive themselves differently in leadership styles. All teachers viewed male and female principals as style 2 (selling) and 1 (telling). Male principals perceived no differences in male and female leadership style while female teachers perceived differences. Male and female principals perceived themselves as being no different in effectiveness while all teachers perceived differences.

Clarke (1984) studied the relationship between leadership style and sex role identity of 20 male and 20 female elementary principals. Her analysis did not yield support for the hypothesis that there was a relationship between sex role identity as measured by the Personal Attributes Questionnaire and leadership style. It was found that 60% of the principals scored in the low LPC category and that this group, in a cross tabulation of scores, demonstrated a preference toward the masculine typed sex role identity.

Gorman (1980) found no support for the hypothesis that there would be a significant relationship between elementary school principals' masculinity and femininity scores and their ratings on the system and person oriented subscales of the LBDQ-XII. Also, no support was found for the hypothesis that there would be a significant relationship between teachers' profeminist/traditional attitudes toward women and their rating of female teachers. The data also indicated there were no statistically significant differences between the ratings of male and female principals on any of the subscales of the LBDQ-XII, nor did the principals' sex-role definitions cause significant differences in teachers' perceptions of their leadership behavior. However, it was found that sex of the respondent was associated with significant differences in ratings of principals on the LBDQ. Female teachers rated both male and female principals higher on all subscales of the LBDQ and

significantly higher than males on three of the subscales. Teachers who rated themselves high on the Beam Sex Role Inventory femininity scale rated male and female principals higher than those who did not. Johnston (1986) examined the leadership styles preferred by a sample of Northern Ireland primary teachers. The teachers wanted male and female head teachers to perform differently. According to Johnston (1986):

... male and female teachers have distinctly different preferences for male leader behavior. Males prefer their male leader to be above all a director and a coordinator, whereas female teachers prefer him to be facilitative and authoritative leader. Preferences for the leadership of a female head also indicate clear differences between male and female teacher expectations. For the sample as a whole, facilitative and directing leadership are important predictors of the preferred leadership of the female head. However, when the preferences for female leadership of males and females are examined separately, facilitative and directing leadership behavior are significantly more important for male respondents. Female teachers, on the other hand, prefer female leadership which coordinates and controls rather than this facilitative leadership preferred by their male counterparts. (p. 224)

In this study, however, cultural factors could have been operating to produce these differences.

There have been several studies that related communication style to leadership style for educational administrators including elementary school principals. Most of these studies do not examine gender differences, but it still may be illuminating to examine these research findings to see how, in general, communication style may be related to leadership style. A study by McNutt (1984) found differences in perception of principals and teachers on ratings of the principal's communication style and leadership effectiveness but did not examine sex related differences. In relation to communication style McNutt (1984) found:

1. Principals rated their own behaviors more positively than teachers rated them on the same behaviors.
2. Principals identified the good communicator as utilizing impression leaving, animated, dramatic and relaxed style modes.

3. Teachers identified the good communicator as employing friendly, attentive and relaxed behaviors.
4. Principals related effectiveness to dominant communicative behaviors and leadership to friendly behaviors.
5. Teachers associated effectiveness and leadership to the good communicator style set - friendly, attentive and relaxed.

Gilbert (1985) examined the relationship between communicator style of principals and their leadership style in selected school districts in Florida. The principals rated themselves as being friendly and impression leaving and having a good overall communicator image on the Norton (1983) Communicator Style Measure (CSM). The teachers perceived their principals as primarily using a selling style of leadership and secondarily a telling style.

Gilbert reached the following conclusions:

1. A relationship exists between the principals perceived communication style and the teachers perceptions of their principals' leadership style.
2. A relationship does exist although not a strong one between the self perceived communication style of principals and the perception of the same style by subordinates.

Skrapits (1987) examined the relationship between principals' leadership and interpersonal communication styles and teacher satisfaction in selected effective and ineffective New York City public elementary schools. The findings suggest that teachers and principals of the two types of schools have different perceptions regarding the principals' leadership and interpersonal communication styles. No evidence was found that more effective leadership styles and active interpersonal communication styles were positively correlated. Effective principals were found to be friendlier, more relaxed, more attentive, more open, and to have a better communicator image than the principals of ineffective schools and they employed different leadership styles contingent on the situation.

Forsyth and Boshart (1985) conducted a study of 27 Kansas elementary school principals and on a subgroup of 9 principals identified as: 3 task oriented, 3 relations oriented, and 3 neither task nor relations oriented. They hypothesized that principals' communications with teachers mediate between the principals' leadership styles and the effectiveness of the organizations they head. The researchers found that the relationship oriented principals saw themselves as relaxed, open, and easy going, but they communicated the least on every dimension (Job Rationale, Instructions, Personal, Procedures and Practices, Feedback, Indoctrination of Goals) of the three groups. The teachers reported being dissatisfied with every communication category under the relationship oriented principals. The principals without a dominant leadership orientation communicated most frequently, particularly concerning the issues of control, but teachers were not very satisfied with the communication except in the area of horizontal communication where the principal would have minimal control. Task oriented principals focused on instructions and on personal talk and left teachers more satisfied. These principals saw themselves as dramatic and friendly in their communication and objectively their communication with teachers focused on instructions and personal talk. These communication areas are similar to the traditional dimensions of initiation of structure and consideration.

When examining the results of sex differences in communication style and leadership studies in education, similar contradictions and confusions are seen as are evident in the business area studies. For example, Morsink (1970) found that female principals, when they were described by both male and female staff members, scored significantly higher on the LBDQ-XII than male principals in the categories of representation, persuasiveness, production emphasis, predictive accuracy, integration of the group, and influence with superiors. These categories are closely related to initiating

structure and to communication style categories but it is not clear what language or verbal behavior is associated with the categories.

Leonard (1981) studied managerial styles in "academe" and quoted from studies conducted by Baird and Bradley (1979). According to Leonard (1981) female managers did not merely act like male managers but instead communicated in different ways. Women gave more information, stressed interpersonal relationships more, were more receptive to ideas, were more encouraging of effort, showed more concern, and were more attentive. Men were more dominant, quicker to challenge others, more direct in their conversations, and more controlling.

Section Summary

The results of studies involving educators seem to support male and female leadership style differences, or at least differences by sex in the perceptions of leadership behavior by subordinates. There are also definite communication style differences between men and women elementary school principals. Specifically, it appears that women give more information, stress interpersonal relationships more, are more encouraging and receptive and are more attentive. Men tend to be more dominant, challenge others and more direct and controlling in their conversations. Effective principals are seen to be friendlier, more relaxed, more attentive, more open, and have a better communicator image than ineffective principals. Teachers see a good communicator principal as friendly, attentive, and relaxed. Principals see the good communicator principal as impression leaving, animated, dramatic, and relaxed. Principals see effectiveness related to dominant communication behaviors whereas teachers see effectiveness related to friendly, attentive, and relaxed behaviors. Many of the education studies, however, use instruments that were based on leadership theories developed in business and industry and which have definite psychometric/statistical problems and inadequacies. The theories and instruments were

also developed and tested predominantly on males. For education this could definitely produce tainted and inaccurate results and interpretations since more and more women are becoming school principals. Traditionally women have dominated and continue to dominate in numbers as teachers, a position that is lower in power, control, and dominance than that of the principal.

V. Women's Research on Leadership Style, Communication Style, and Sex Differences

Other than those findings discussed earlier in the area of business/managerial leadership and sex/communication style differences there have been very few studies that specifically examined the interrelationships among gender, leadership style, and communication style for public school principals. Shakeshaft (1989) indicates that "very little research has been undertaken to document differences in male and female school administrators' written and spoken communication" (p. 184). Even though leadership style and communication style overlap, Shakeshaft (1989) feels that communication style may be an important subset and determiner of leadership style, especially for women.

Communication style may mediate how leader behaviors, both verbal and nonverbal, are perceived by colleagues and subordinates. Socialization, sex role stereotypes, psychological gender types, social cultural conditioning, and conditioned attitudes each play an important part in how leadership style and communication behaviors are perceived by subordinates and how they develop and are reinforced. Shakeshaft (1989) and Shakeshaft et al. (1991) provide a discussion of the differences in the way men and women manage schools and supervise and especially in how they differ in leadership and communication styles. Shakeshaft and others have criticized the leadership research as being androcentric or "male" biased both in theory and corresponding research. More specifically, the early leadership theories and the ones most often used and cited in texts were based on primarily male samples and had a male "POSDCoRB" (Planning,

Organizing, Staffing, Directing, Coordinating, Reporting, Budgeting, Evaluating) bias in their theoretical development. Shakeshaft (1989) indicates that this androcentric bias (viewing the world and shaping reality from a male-linear and logical lens) has created weaknesses in existing paradigms, and theoretical models, producing inaccurate and unbalanced research. According to Shakeshaft (1989), "correcting weaknesses in this scholarship is a methodological issue of enormous importance as bias affects conceptual formation as well as issues of reliability and validity" (p. 150). Shakeshaft calls into question the validity and reliability of instruments and theory that excludes women's experiences and research on women. This would make questionable earlier research based on these theories and the instruments used to measure leadership style.

Based on the few studies reviewed by Shakeshaft (1989), "Women administrators conduct more unscheduled meetings, monitor less, take fewer trips away from the building, and observe teachers more often" (p. 170). In addition, when comparing male and female secondary school principals, female principals had

a higher percentage of contacts initiated by others, shorter desk work sessions during the school day and more time spent during after school hours, higher percentage of total contacts with superiors, longer average duration for scheduled meetings, phone calls, and unscheduled meetings. (Shakeshaft, 1989, pp. 170-171)

Shakeshaft (1989) concludes that "although men and women administrators tend to do the same things in carrying out their work, they may put a different emphasis (or priority) on the importance of the tasks" (p. 171).

According to her review of the literature Shakeshaft (1989) indicates that many researchers have documented differences in male and female language. Some of the stereotypical differences she discusses are:

1. Women are more likely to use expressive language and intensifiers and to ask questions and to express opinions than men.
2. Women tend to use language that encourages community building and is more polite and cheerful than the language of men.
3. Women use language that indicates more consideration and concern than language of men.
4. Women listen more than men; women remember more of what all participants say in a conversation.
5. Women use more affiliation words than men and use more emotional language.
6. Men use more hostile verbs than women. Men's language tends to be third person rather than personal (I think this is right versus I feel this is right).
7. Women talk more to subordinates than men and in these conversations supply more information and are more receptive to subordinates ideas than men.
(pp. 179-183)

Shakeshaft (1989) suggests that the research indicates that "rather than adopting male speech patterns, it may be that all managers - male and female - could benefit from learning women's speech" (p. 185). Shakeshaft (1989) concludes:

From this literature it seems clear that women and men communicate in different ways. Further, it would seem that women's traditional and stereotypic styles of communicating are more like the good manager than are men's stereotypic styles.
(p. 186)

According to Shakeshaft (1989), women's communication styles are more like what some writers assert will be needed from effective managers in the 1990's compared to the current stereotypic male control/directive styles. Shakeshaft (1989) concludes "as a group women tend to have a different administrative style than do men and that effectiveness for a female may depend on this altered approach" (p. 190).

Ortiz and Marshall (1988) discuss several studies that contrasted the effectiveness of men and women principals and found that the female principals did as well or better than the males in several areas. They indicate researchers have reported that female principals

contribute to higher teacher performance and student achievement. In general, they take a more active stance towards instructional leadership than men. Other studies have reported women use more desirable supervisory practices than male principals. Women principals have been more concerned with individual differences than their male counterparts, demonstrated a superior knowledge of teaching methods, and shown more concern with the objectives of teaching in several other studies. In terms of communication and behavioral interactions, Ortiz and Marshall (1988) report that male principals tended to interact more than the women principals over organizational matters and that the interactions of the women were more diffuse. The authors (Ortiz & Marshall, 1988) summarize that "the new structure and the pattern of teacher-principal interaction even where principals are women, serve to confirm traditional perceptions of organizational leadership potential" (p. 133).

Helgesen (1990) does essentially a narrative/diary and a direct observation of the activities of four women executives, similar to the 1968 study done by Mintzberg on five male executives. Using a story data gathering format she describes the similarities and dissimilarities in the women and men. She identifies 8 dissimilarities: The women worked at a steady pace, but with small breaks throughout the day, the women did not view unscheduled tasks and encounters as interruptions, the women made time for activities not directly related to their work, the women preferred live action encounters but scheduled time to attend to mail, they maintained a complex network of relationships with people outside their organizations, they focused on the ecology of leadership, they saw their own identities as complex and multi-faceted and the women scheduled in time for sharing information. She describes the "feminine principles" of:

caring, making intuitive decisions, not getting hung up on hierarchy, having a sense of work as being part of their lives, not separate from it, putting your labor where your love is, being responsible to the world in how you use your profits,

recognizing the bottom line should stay there -- at the bottom. (Helgesen, 1990, pp. 38-39)

The following comparisons of Mintzberg's (1973) and Helgeson's (1990) male and female CEO's can be made:

Mintzberg's Males

1. Worked at an unrelenting pace; no breaks during the day
2. Interruptions were to be avoided because they caused fragmentation and discontinuity
3. They engaged in primarily only work related activities
4. They preferred live action encounters
5. They had little time for reflection or long term planning
6. Maintained outside networks
7. They heavily identified their self with their job
8. They had difficulty sharing information

Helgeson's Females

1. Worked at a steady pace with small scheduled breaks
2. Interruptions were not seen as a problem
3. They engaged in non-work related activities
4. They preferred live action encounters but scheduled time to go through their mail
5. They focused on the ecology of leadership
6. Maintained outside networks
7. Their identity was seen as multifaceted and complex
8. They scheduled time to share information and would try to return a response in three working days

Helgesen (1990) takes the point of view that women can make better managers than men because of the differing experiences and expectations that women bring to the work place. She concluded that "what business needs now is exactly what women are able to provide, and at the very time when women are surging into the work force" (1990, p. 39).

Aburdene and Naisbitt.(1992) see a different style of woman's leadership behavior. In a chart they spent 10 years developing, they identified six unique traits of woman's leadership as: Empowerment (reward, motivation, vision, valuing creativity); Restructuring (change, networking, flexible, holistic, systematic); Teaching (facilitating,

teaching style); Role Model (acts as a model); Openness (nourishing environment for growth, reaching out, providing information); and Questioner (asks the right questions). They also assert that woman's style of leadership is currently needed and is different from male leadership having an advantage over the old male traditional style.

Loden's (1985) book is similar to Helgesen's but more detailed and extensive. It is surprising how close the two come in their conclusions and statements. Loden also says that

a growing body of evidence suggests that, as a group, women compared to most men do indeed have a different style of management and are likely to function somewhat differently, yet effectively, in leadership roles. (p. 62)

She identifies the key characteristics of the unique feminine style as:

Operating style-cooperative, Organizational Structure-Team, Basic Problem-quality output, problem solving style-intuitive rational, Key Characteristics-control, empathic, collaborative, high performance standards. (Loden, 1985, p. 63)

For the masculine style she identifies: Operating style-competitive, Organizational structure-Hierarchy, Basic Objective-winning, problem solving style-rational and key characteristics-high control, strategic, unemotional, analytic (Loden, 1985).

She makes the assertion that

the origins of these differences are rooted in the basic facts of biology and the physiology as well as in the fundamentally different ways in which boys and girls are raised and socialized in our culture. (Loden, 1985, p. 63)

It seems that Loden sees the feminine leadership style as complementary to the traditional masculine control style. She says that both can enrich the corporate environment. However, it is equally as clear that she sees the feminine style as better when she makes statements such as:

Women bring unique qualities to leadership positions that should not only be recognized but exploited: our sensitivity, the way we relate to people are huge assets. But the key distinction is that as a class, women exhibit these particular leadership attributes to a far greater degree than men. (Loden, 1985, pp. 4, 7-4)

Other women have also argued that there are basic differences between men and women's communication (Pearson et al., 1991), in how women managers learn and what they learn from both organizational and nonorganizational experiences (Van Velsor & Hughes, 1990), in the different skills they bring to the work place (Taylor, 1984), and in general and specific leadership styles and skills (Rosner, 1990; Rosner et al., 1990).

Currently the research debate and lay books have unfortunately focused on whether women's management style is better than men's (Billard, 1992). Rosner's (1990) research drew some serious criticism. Billard (1992) discussed criticisms "that much current research shows that men and women tend to stereotype their own behavior" (p. 70). Interestingly, based on Bass's (1981, 1990) comments, Billard reports he found in his research that "women bosses were more often described as possessing transformational leadership qualities" (Billard, 1992, p. 70). Billard (1992) notes that the critics see the emphasis on men and women differences in the books by Tannen (1990), Moir and Jessel (1991), and Gilligan (1984) as a form of stereotyping by gender and is a form of sexism that will "shackle women to their traditional role as nurturer" (p. 70). Billard (1992) quotes one female manager as saying "I can be as tough as the men in my office, but I apply it differently, say it differently. Men and women can learn from each other" (p. 70).

Section Summary

Definite differences between the leadership styles and communication styles of men and women are discussed in feminist writings and research. There may be some built in bias operating but it is clear from the writings of Bass (1990), Immegart (1988), Ortiz and Marshall (1988), and Shakeshaft (1989) that there are problems with the conceptualization

and methodology (instrumentation) of leadership theories developed on men and by men. The exclusion of women from theory and instrument development in the leadership areas continues to exacerbate the debate over research findings.

VI. An Attempted Integration of Leadership Style, Communication Style, and Sex Differences

Recently there have been research and books that have attempted to integrate leadership/management style, communication, and gender (Bartol & Martin, 1986; Pearson et al., 1991; Powell, 1988; Stewart & Ting-Tomey, 1987). Penley and Hawkins (1985), in a study of managerial/subordinate communication, found some results that seemed counter to previous thought in theories of leadership.

Specifically, they found the five principal things that managers talk about with subordinates were:

Task Subjects: They let subordinates know what needs to be done, explain changes in the work place and explain company policy.

Performance Subjects: They communicate information about the quality of subordinates work and how they are doing.

Career Subjects: They give advice and discuss training opportunities.

Ad Hoc Subjects: They discuss subjects brought up by subordinates and they listen to questions raised and give direct responses.

Personal Subjects: They discuss personal matters, family matters, interests off the job and problems off the job. (Penley & Hawkins, 1985, pp. 319-324)

When managers do a lot of talking about each of these subjects, they all make subordinates feel the boss is showing them consideration and showing an interest in the work to be done. The researchers concluded that if the manager wants subordinates to feel he or she is being considerate then the following subjects are most important:

1. Any subject responding to a subordinate inquiry.
2. Subjects that let subordinate know what work needs to be done.
3. The subject of the subordinates career.

Number two above has traditionally been considered a task oriented matter. It has not been thought of as promoting good feelings among subordinates or as of a relationship promoting activity.

It should be noted that sex of subject was not included as a variable in the Penley and Hawkins (1985) study. Their study actually consisted of two smaller studies. In study I, 51 percent of the sample was female and in study II, 26 percent of the sample was female. The study samples were from a large insurance company and from a logistics and support division of a large military base limit and preclude generalizations to educational organizations.

Communication skills and abilities are considered to be essential to successful managing, not only in the technical work of management but also in observations of actual managers and leaders at all levels. However, the specific behavioral skills, abilities, and actual verbal language overtly shown to produce effective and successful leadership have not been studied adequately. To alleviate this gap, Penley et al. (1991) examined the relationship between managerial performance and communication competence by identifying communication skills and social/cognitive abilities that are associated with managerial performance for both male and female managers. Among the several findings was the fact that there were few consistent differences between male and female managerial behavior within organizations. However, it was suggested there were many areas of organizational communication behavior that have not been addressed by research. On all three of the oral communication apprehension subscales (public apprehension, interpersonal apprehension, and nonverbal apprehension) women reported significantly more oral communication apprehension than men. On the two scales of written

communication apprehension, women and men differed only on the difficulty in writing measure, with women reporting significantly more difficulty in writing than men. The only other significant difference was on one of the subscales of self-monitoring/ introversion. Women described themselves as significantly more introverted than men. There was no interaction effects between sex and performance.

Luthans and Larsen (1986) and Luthans et al. (1985) used a direct behavioral observation framework and rating scales to describe what successful managers do and how managers communicate. In addition, they used self report measures, success, and performance indexes to measure performance success and effectiveness in a managerial role. In their study (Luthans & Larsen, 1985), five major organizations were used but these did not include an educational organization. Neither sex differences nor percentages were reported in the sample (N=120). The one finding that was surprising was that managerial activity included much socializing and politicking with members internal and external to the organization and that this almost equaled time spent with decision making and planning. Their canonical analysis of self report data and direct observation data resulted in a two dimensional model of managerial communication. This model resembles a cross with Humanistic Interactor at the top and Mechanistic Interactor at the bottom. On the horizontal ends are the Informal Developer on the left and the Formal Controller on the right. In the Luthans et al. (1985) study the sample was smaller and used a manufacturing plant, a campus police department, and a state department of revenue. Again, no sex differences were reported in this study. Their general findings using the Leadership Observation System checklist of observable behaviors were:

1. Success as a manager was related to interaction with others and socializing and politicking.
2. Successful managers exhibited more behaviors related to conflict management and

3. Successful top Level managers exhibited more behaviors related to decision making and planning/coordinating and that the activities of some of the successful managers depended on the type of organization in which they worked. (Luthans et al., 1985, p. 255)

Dansereau and Markham (1987) advocate looking at leadership from multiple levels and discuss communication and leadership from the Vertical Dyad Linkage Model. Baker and Ganster (1985) studied the leadership style models of the Average Leadership Model and the Vertical Dyad Linkage Model as well as communication constructs using special statistical analyses and found that in general the ALM model fit the results best, but some results did not entirely rule out the VDL model. They also found that "the construct of communication style was an important variable for organizational communication and leadership practice and research" (Baker & Ganster, 1985, p. 256).

Pondy (1989) argues that leadership is essentially a "language game" and leadership could be thought of as language. He criticizes the terms leadership style as too limiting and applying only to the "surface structure" or observable and measurable aspects of behavior and ignoring the deep structure or meaning, including symbols and metaphors. Pondy indicates that there is overlap between communication style and leadership style but to use them interchangeably may not be correct. He criticizes leadership theory as identifying only a small number of strategies to choose from and not recognizing that leadership behavior, specifically the use of language and communication, is almost creatively unbounded. He states that the leader's subtle use of language may also be an important factor in determining his effectiveness both in enhancing his credibility and in managing the influence process.

Thayer (1988) makes interesting arguments and proposals for the study of leadership and communication. He suggests that communication scholars have given little attention to leadership and leadership scholars for the most part have given even less

attention to communication. Thayer believes that leadership is a subset of the study of communication and that we should study the different "stories" and communication of ideas and "meaning" by leaders and how these are accepted by followers.

Staley and Shockley-Zalabak (1989) have proposed a more multi-level and multi-methodologies approach for research on gender issues. They discuss the benefits to research for using this more multi-level triangulation approach. They indicate that multiple methodologies, both quantitative and qualitative, and multi-level perspectives in the areas of self, peers, subordinates, and superiors have produced a collection of mixed results. When methodologies and perspectives have been used one at a time in typical linear research the results have been mixed and confusing. They indicate that using multiple methodologies, both quantitative and qualitative and multi-level perspectives (self, peers, subordinates, and superiors) offers clear benefits for improving research. They define triangulation as the use of multiple and diverse data sources and collection techniques to study a single research question or to understand complex phenomena. Triangulation designs permit both description and interpretation. In triangulation the researchers provide a table of data sources and collection methods. In their article a table is also provided of the advantages and disadvantages of different methodologies for studying women's communication. An illustration of the triangulation method is provided for a study the authors conducted to look at male/female communication behavior during decision making (Staley & Shockley-Zalabak, 1989). It was concluded that data from the multi-level triangulation design gave a more complete picture with which to approach research questions than any of the data in isolation.

Section Summary

When leadership styles, communication styles, and sex are examined together interesting results are found. There are still several methodological problems in these

studies designs and instrumentation but there does appear to be some interesting interactions when gender and communication are included with leadership. There also appears to be a push to cross discipline lines and to include multiple variables and multiple levels when examining leadership, especially when gender or sex is included as a variable.

Chapter Summary

Most of the current research and writings on differences between sex and leadership styles tends to support the contention that there are subtle differences in the leadership styles of men and women. What has complicated this area of research has been the multiple theories of research, different samples and organizations used, and questionable measurement instruments in terms of reliability and validity. This calls into serious question the findings of leadership and gender research, especially for women. Nevertheless, Eagly and Johnson's (1990) and Eagly and Karau's (1991) recent meta analytic reviews of the literature suggest that women managers are more democratic (participative) than men, but not more interpersonal. Male managers are more autocratic and directive, but not more task oriented (however, see the Eagly, Karau, and Johnson (1992) study that found female principals to be more task oriented than male principals). These are very important findings since they contradict previous research and stereotypes. At best the sex and leadership research is contradictory, confusing, and "murkey." In addition, until about the last ten years, there has been little gender/leadership style research on educational administrators simply because there were not enough female administrators to study. Research that has been done on educational administrators also finds contradictory results because of the reasons mentioned earlier. There are still many researchers who strongly suggest that there are no leadership style differences between practicing male and female managers (Bass, 1990), but again little is discussed about educational administrators, especially elementary school principals.

There exists some of the same contradictory research and confusion in the communication science/sex differences research. In general, however, there do appear to be differences between men and women in these areas as discussed by Bass (1990), Fairhurst (1986), Pearson et al. (1991), Penley et al. (1991), Pruett (1989), Rosner (1990), Shakeshaft (1989), Tannen (1990, 1994), Van Velsor and Hughes (1990), and Loden (1985). Although Penley et al. (1991) do discuss research that found differences in communication patterns of men and women they conclude that

Research concerning male and female manager's communication is inconsistent and research concerning gender differences suggests there are few differences between the communication of men and women, given similar situations. (pp. 62-63)

In their own study, however, Penley et al. (1991) found significant differences between male and female managers on scales of communication apprehension and introversion/extroversion.

In her meta analytic review of communication style and gender studies Pruett (1989) concludes:

The results of this analysis clearly indicate that communicator style variables differ consistently between the sexes. Men are more dominant, dramatic, and contentious. Women are more animated, attentive, open and friendly. (p. 116)

Whether it is due to social conditioning, politics, the situation/context, social role assumption, or cognitive/ perceptual differences in their approach to moral reasoning (Gilligan, 1982), there do appear to be differences in male and female communication styles. Empirically the instruments used to measure communication style and communication competency are far from adequate measures of the constructs they purport to measure. As in the leadership area the theoretical constructs and the development of adequate measures are also still being debated (Penley et al., 1991).

In addition there is lacking an integration of the constructs of communication style and leadership style. This is especially true for educational administrators, because much of their time is spent communicating and because the public school organization is different from a business or industrial organization. Because of this overall difference, different types of leadership training and organizational development activities would be required for business and education. The impact of different organizational cultures on psychometric characteristics of self measurement instruments also has to be considered.

Researchers must first study the psychometric characteristics of communication and leadership style instruments (Bass, 1990) and compare men and women and other groups to see if the constructs hold to be valid and reliable for these groups as well as to generally improve the instruments themselves. Demographic data should also be collected to determine how it may influence responses on instrumentation. Instruments are being used in important research and to make important decisions about a person's self perceived leadership and communication style in training seminars and at work. It is thus important that they have adequate data on the psychometric properties of the different measures. In an exploratory manner this research will examine the above issues in order to add to the knowledge about, and data base for, at least two popular self report measures, one for leadership style, and one for communication style using public school elementary principals in North Carolina as subjects.

CHAPTER III

METHODOLOGY

Participants

The population for this study was all the male and female elementary school principals in North Carolina schools with any combination of grades K-5. Middle schools with grades 6-8 and schools with grades above 6, i.e., K-12 and K-9 were excluded. A randomized list of these principals was provided by the North Carolina Department of Public Instruction (NCDPI). This list contained 456 male principals (61%) and 286 female principals (39%) for the 1992-93 school year. The list and numbers cited above were accurate as of August 24, 1992.

The above figures seem reasonable and accurate since a study using data from 25 states reported that 25% of 26,584 elementary school principals were female (Jones & Montenegro, 1985). The data covered the 1984-85 school year. The study did not, however, describe the grades included in "elementary school" (James & Montenegro, 1985).

Details of the Sampling Method

Two hundred male and 200 female principals were randomly selected from the list for the study. This sample size is predicated upon the need for at least 100 male and 100 female respondents in order to estimate population parameters with sufficient statistical precision and to be able to appropriately use multivariate statistical analysis procedures. A 50% response rate was anticipated.

Dillman's (1978) total design method as outlined in his book (Mail and Telephone Surveys: The Total Design Method) was used to increase the sample response rate to the

maximum possible. Copies of the survey mailing letters and reminder post card are presented in Appendix A. Dillman's (1974) method was modified so that the last or third registered mail out was not conducted. All the other procedures recommended by Dillman were followed, including the use of the reminder postcard and a second mail out of packets to those participants who had not yet returned their packets.

Instrumentation

The three main data collection instruments used in this study were the Norton (1983) Communication Style measure, the Hersey and Blanchard (1989) Leadership Style Measure (LEAD-Self), and a demographic questionnaire. Permission was obtained from the publishers of the LEAD-Self instrument and from Dr. Robert Norton for the Communication Style instrument, to use these instruments in this study. Permission verification is included in Appendix G. Both instruments are self perception rating measures.

The Communication Style Measure consists of 51 items, of which 45 are scored on 10 independent subscales with the Communicator Image subscale used as a dependent or independent variable scale. The subscales are named Friendly, Impression Leaving, Relaxed, Contentious/ Argumentative, Attentive, Precise, Animated/Expressive, Dramatic, Open, Dominant, and Communication Image. Each scale consists of four Likert-type items. The dependent variable scale, Communicator Image, consists of five items. For each item the respondent can choose from five alternatives; YES indicating strong agreement, yes indicating agreement, ? indicating neither agreement nor disagreement, no indicating disagreement, and NO indicating strong disagreement. Point values are assigned to the responses with 1 to NO, 2 to no, 3 to ?, 4 to yes, and 5 to YES. Item 51 is assigned points from 1 to 6 for the person's self-ranking of their communication style in a random group of six people. The definition of each Communication Style subscale and a list of the

items in each subscale is included in Appendix B along with the instructions for scoring (Norton, 1983).

The Communication Style Measure (Norton, 1983) has been widely used in the study of communication and leadership. It has demonstrated structural (internal consistency) reliability over a variety of studies (Gudykunst & Lim, 1985; Norton, 1983; Pruett, 1989). Reported internal reliabilities for the different Communication Style scales are: Dominant (.82), Dramatic (.68), Contentious (.65), Animated (.70), Open (.69), Friendly (.70), and Communicator Image (.72). A factor analysis using the smallest space analysis method was reported to be $K=.04$. A Kruskal's stress coefficient was reported at .02 (Norton, 1983; Rybczyk & Allen, 1989). A meta-analytic study of nine studies using the Norton Communicator Style measure reported reliabilities for the scales ranged from: Dominant (.70 to .86), Dramatic (.64 to .76), Contentious (.60 to .81), Animated (.56 to .69), Impression Leaving (.69 to .81), Relaxed (.66 to .71), Attentive (.57 to .73), Open (.67 to .69), and Friendly (.37 to .63) (Pruett, 1989).

The latest version of Hersey and Blanchard's LEAD-Self (1989) instrument was used to measure self-assessed leadership style. The LEAD-Self is based on the situational leadership theory proposed by Hersey and Blanchard (1988). This theory proposes four quadrants of possible leader behavior produced by differing levels of task and relationship behaviors required in different work situations. Three levels and four categories of follower readiness (High, Moderate, and Low and R1, R2, R3, and R4) are matched with the four quadrants of leader behavior. Four different decision styles are also matched with the four leader behavior quadrants (Hersey & Blanchard, 1988). The LEAD-Self is a forced choice ipsative instrument measuring four categories of leadership; Telling, Selling, Participating, and Delegating. The highest score a person can receive in each category is 12 and all scores in the four categories must sum to 12. There are 12 different situations or

statements to which a person must select from four possible alternative actions the one he/she thinks the leader should take. Each of the four alternative actions for each situation has already been assigned to one of the four leadership style categories. Each of the situations has also been preassigned a group readiness level ranging from R1 to R4 based on the situational leadership model. The leadership category that has the greatest number of responses is the primary leadership style. Secondary or supporting styles are indicated by those categories in which there are two or more responses.

The LEAD-Self's scoring also allows for a measure of leadership style adaptability. The alternative actions for each of the 12 situations are assigned a point value of 0 to 3. A value of 3 indicates the best fit for the action and situation. A zero value indicates that the alternative action has a low probability of success for that situation. The scores are summed across all 12 situations. The adaptability score range is from 0 to 36. The scores are categorized into three levels of adaptability; low or need for self-development (0-23), moderate (24-29), and high (30-36). The moderate level indicates a "pronounced primary leadership style with less flexibility into the secondary styles" (Leadership Studies, 1989). The high level indicates the leader "accurately diagnoses the ability and willingness of the follower for the situation and adjusts accordingly" (Leadership Studies, 1989). Appendix B includes the LEAD-Self instrument and scoring directions and a graphical description of the Situational Leadership model (Leadership Studies, 1989).

Bass (1990) and Hunsucker and Cook (1986) have indicated that many managers find the situational leadership model intuitively appealing and believe that it provides useful information on how they should modify their behavior. Bass indicates the model is also popular with leaders of management training programs. Vecchio's (1987) study is probably the most comprehensive to date on situational leadership. Vecchio's findings provided only partial support for the situational model, especially in the low (follower)

maturity quadrant but for the moderate and high maturity conditions, it was not clear what supervisory/ leadership styles were best.

Blank et al. (1990) also indicate that recent research offers mixed support for situational leadership theory (SLT). In their study they did find that the leaders' use of relationship behavior did make significant unique contributions to both types of subordinate satisfaction. However, their results generally found a lack of support for the basic assumptions that underlie SLT. They did find one category that corresponded to the SLT hypotheses. They concluded that "fundamental measurement and design issues still need to be explored in order to ascertain the validity of SLT" (Blank et al., 1990, p. 596). The researchers felt their findings supported the need for more empirical research on SLT (Blank et al., 1990).

In addition to the above self assessment instruments a short demographic survey was included that asked for the participant's age, sex, race, number of years as an elementary school principal, number of years as a school principal (non-elementary), total number of years in public school education, total student enrollment of school, number of full time staff, type of school (urban, rural, inner city), and area of school (mountain, piedmont, coastal). It was necessary to have data on these variables to examine their effects in the statistical analyses of male-female comparisons on the leadership and communication style measures. The demographic questionnaire is presented in Appendix C.

Design of Study

This study falls under the descriptive, ex post facto type of educational research. More specifically, Campbell and Stanley (1963) discuss this type of research under the heading of Correlational and Ex Post Facto Designs and Ex Post Facto Analysis. It will use two self report measures, one of Leadership Style and one of Communication Style along with a collection of demographic data from K-5 elementary school principals in

North Carolina. Specific comparisons between male and female responses on the data collection instruments are presented. Internal consistency reliability (Cronbach's alpha) chi square analyses, factor analyses, multivariate analyses (MANOVA), and multiple regression analyses were conducted with a specific focus on possible significant sex differences.

Kerlinger (1973, p. 391) has indicated that ex post facto research is valued in education simply because many research problems in this area lend themselves more to this type of experimental inquiry than to "true" experimental type of research. Limitations of the ex post facto design include:

1. The inability to manipulate independent variables. Direct control of the independent variables is not possible because their manifestations have already occurred or because they are inherently not manipulable.
2. Inferences about relations among variables are made without direct intervention, from concomitant variation of independent and dependent variables. (Kerlinger, 1973, p. 379)

CHAPTER IV

RESULTS

A total of 420 questionnaires were mailed instead of the 400 planned. This was necessary because one school system refused to let its sample of 20 principals participate. Two-hundred ten questionnaires for males and 210 questionnaires for females were mailed. One-hundred twenty-six (60%) useable male packets were returned and 125 useable female packets (59.5%) were returned. The overall return rate was 251, or 59.8%.

Data on the non-responders indicated that they were not too different from the responders. For the non-responders 57% were males and 43% were females; 13% came from the Mountain region, 58% from the Piedmont, and 29% from the Coastal region of the state. For the responders, approximately 50% were males and 50% were females; 9% came from the Mountain region, 61% from the Piedmont, and 30% from the Coastal region of the state. No other data were obtained on the non-responders. Having approximately 40% of the selected sample not responding would limit generalizations that could be made from the results.

Table 1 shows the percentage of responses to the items on the demographic questionnaire by sex. A Chi-Square analysis by sex was conducted on the demographic variables and is presented in Table 2. Significant Chi-Squares were obtained on the following four demographic variables: Years of Education, Years as an Elementary School Principal, Years as a Principal other than an Elementary School Principal, and Age. Thus, categorization of the frequencies for those four demographic variables is not independent of sex. An examination of Table 1 shows the significant differences. More males (81%) have spent 20+ years in education, compared to 66.4% for females. More than half (53.2%) of

Table 1

Demographic Variables by Sex Reported in Percentages of Respondents

| Demographic Variable | Male (<i>n</i> =126) | Female (<i>n</i> =125) |
|---|--------------------------|----------------------------|
| Years in Education | | |
| 5-9 | 0.0% | 0.8% |
| 10-14 | 1.6% | 5.6% |
| 15-19 | 17.4% | 27.2% |
| 20+ | 81.0% | 66.4% |
| Years as Elementary Principal | | |
| 0-4 | 27.0% | 45.6% |
| 5-9 | 19.8% | 30.4% |
| 10+ | 53.2% | 24.0% |
| Years as Non-Elementary Principal | | |
| 0-4 | 68.8% | 87.2% |
| 5-9 | 11.2% | 7.2% |
| 10+ | 20.0% | 5.6% |
| Number of Students Enrolled | | |
| <100 | 0.0% | 0.8% |
| 100-200 | 4.0% | 1.6% |
| 201-300 | 8.9% | 10.5% |
| 301-400 | 23.4% | 17.7% |
| 401+ | 63.7% | 69.4% |
| Average Full-time Certified Staff (<i>n</i>) | 29.5 | 30.5 |
| Type of Community | | |
| Urban | 42.6% | 42.6% |
| Rural | 44.3% | 42.6% |
| Inner City Urban | 13.1% | 14.8% |
| Area of State | | |
| Mountain | 11.3% | 6.5% |
| Piedmont | 58.9% | 63.7% |
| Coastal | 29.8% | 29.8% |
| Age | | |
| 31-37 | 0.8% | 5.6% |
| 38-44 | 26.6% | 33.1% |
| 45-50 | 39.5% | 40.3% |
| 51+ | 33.1% | 21.0% |
| Race | | |
| Black American | 13.5% | 20.0% |
| White | 86.5% | 80.0% |

Table 2

Chi-Squares of Demographic Variables by Sex

| Demographic Variable | χ^2 | Prob. |
|-----------------------------------|----------|--------|
| Years in Education | 8.297 | 0.040* |
| Years as Elementary Principal | 22.606 | 0.000* |
| Years as Non-Elementary Principal | 13.925 | 0.001* |
| Number of Students Enrolled | 3.710 | 0.447 |
| Type of Community | 0.155 | 0.925 |
| Area of State | 1.873 | 0.392 |
| Age | 8.333 | 0.033* |
| Race | 1.907 | 0.167 |

* Statistically significant $p < .05$

the males have been an elementary school principal for 10+ years compared to 24% for females. Approximately 46% of the females compared to 27% for the males have been an elementary school principal for 0-4 years. A similar trend is seen for years as a non-elementary school principal. Twenty percent of the males compared to approximately 6% of the females have been a non-elementary principal for 10+ years. Approximately 29% of the males compared to 87% of the females have been a non-elementary school principal for 0-4 years. An examination of age shows that approximately 6% of the females compared to approximately only 1% of the males fall in the 31-37 age category. Thirty-three percent of the females compared to approximately 27% of the males fall in the 38-44 age category. In the 51+ age category there are 33% of the males compared to 21% of the females. The

four demographic variables with significant Chi-Squares may be confounded with each other. For example, it is likely that the older principals are, the more years experience they have as elementary school principals and the more years they have in education. Also, the more years in education the more likely the principal is to have more years as a principal both elementary and non-elementary. Chi-Square analyses were conducted for the demographic variables, Years in Education, Years as an Elementary School Principal, and Years as a non-Elementary School Principal by Age for the total sample. The results are presented in Tables 3-5. All three Chi-Squares were statistically significant indicating a significant relationship between exists between these demographic variables and age for

Table 3
Chi-Square Analysis of Age By Years in Education

| Age | Years in Education (n) | | | | Total |
|-------|------------------------|-------|-------|-----|-------|
| | 5-9 | 10-14 | 15-19 | 20+ | |
| 31-37 | 0 | 6 | 2 | 0 | 8 |
| 38-44 | 1 | 1 | 41 | 28 | 71 |
| 45-51 | 0 | 2 | 7 | 86 | 95 |
| 52+ | 0 | 0 | 3 | 61 | 64 |
| Total | 1 | 9 | 53 | 175 | 238 |

Note: Chi-Square=197.31; p<.0001

the total sample. Spearman rank order correlations were also obtained on the demographic variables: Years in Education, Years as an Elementary School Principal, Years as a non-

Table 4

Chi-Square Analysis of Age By Years as an Elementary School Principal

| Age | Years as an Elementary School Principal (n) | | | Total |
|-------|---|-----|-----|-------|
| | 0-4 | 5-9 | 10+ | |
| 31-37 | 6 | 2 | 0 | 8 |
| 38-44 | 34 | 24 | 13 | 71 |
| 45-51 | 43 | 19 | 33 | 95 |
| 52+ | 4 | 13 | 47 | 64 |
| Total | 87 | 58 | 93 | 238 |

Note: Chi-Square=58.30; $p < .0001$

Table 5

Chi-Square Analysis of Age By Years as a Non-Elementary School Principal

| Age | Years as a Non-Elementary School Principal (n) | | | Total |
|-------|--|-----|-----|-------|
| | 0-4 | 5-9 | 10+ | |
| 31-37 | 7 | 1 | 0 | 8 |
| 38-44 | 64 | 2 | 4 | 70 |
| 45-51 | 73 | 13 | 9 | 95 |
| 52+ | 44 | 5 | 15 | 64 |
| Total | 188 | 21 | 28 | 238 |

Note: Chi-Square=18.78; $p < .005$

Elementary School Principal, and Age and are presented in Table 6. Of special note are the significant correlations between age and years in education and years as an elementary school principal for men and women. The Chi-Square results are important in interpreting the results of other analyses that will be discussed.

Table 6

Spearman Correlations for Demographic Variables by Sex

| Variable | Years as an Elementary School Principal | Years as a Non-Elementary School Principal | Age |
|--|---|--|--------|
| Male | | | |
| Years in Education | .36* | .18 | .47* |
| Years as an Elementary School Principal | – | -.01 | .37* |
| Years as a Non-Elementary School Principal | – | – | .15 |
| Female | | | |
| Years in Education | .25** | .15 | .64* |
| Years as an Elementary School Principal | – | .25*** | .45* |
| Years as a Non-Elementary School Principal | – | – | .25*** |

Note: * $p < .0001$; ** $p < .006$; *** $p < .007$

LEAD-Self Results

The LEAD-Self is an ipsative type of self assessment instrument (Boone, 1981).

Characteristics of an ipsative measure include:

1. Ipsative measures employ a forced choice format and the items are scored for more than one variable or attribute.

2. The sum of the scores obtained over the attributes measured for each respondent is constant (Boone, 1981).

3. The strength of each variable depends not solely on that variable but on its strength relative to the strength of others. If one variable goes up another must go down (Lyman, 1971).

4. The frame of reference in ipsative scoring is the individual rather than the normative sample.

5. Ipsative measures do not measure the intensity or frequency of the choices made by the respondent.

Several researchers (Cattell, 1944; Dixon & Ahern, 1973; Guilford, 1961; Hicks, 1970; Kerlinger, 1973; Pedhazur, 1982) have discussed problems with using ipsative measures in statistical analyses and research. These problems include:

1. A linear dependency is introduced into the score matrix. Thus, information provided by some of the variables is completely redundant with the information available from other variables and useless for the purpose of regression analysis (Pedhazur, 1982).

2. The mean intercorrelation of individual scales tends to be negative and the mean correlation of all the scales with any outside variables will approach zero (Anastasi, 1982). Because the scores for the four leadership styles are interdependent it is not legitimate to report intercorrelations among the scores. If intercorrelations are made some of the results will be negative values (Boone, 1981). Because of the above constraints ipsative scores cannot be properly analyzed using usual correlational and factor analytic procedures (Cattell, 1944; Guilford, 1961; Hicks, 1970). Kerlinger (1973) has written that ipsative scores produce spurious negative correlations between items. Further, ipsative scores lack independence on which most normative and inferential statistics are based. For this reason ipsative measures are not appropriate for comparative research.

Because of the constraints and problems with ipsative scores the LEAD-Self results were analyzed using descriptive statistics and by examining patterns among responses in the four leadership style categories. Some correlations will be reported to show the negative correlations that result from using ipsative scores. Table 7 presents the mean scores on the leadership style categories by sex. The means and standard deviations are almost equal for the sexes. The categories of Selling and Participating have much higher means than the categories of Telling and Delegating and the means are almost equal within sex and between sex. Table 8 shows the frequency of the principals' primary leadership styles by sex. Here, too, the sexes have almost equal frequencies in the four leadership style categories. The categories of Selling and Participating have almost equal frequencies within and between sexes. A Chi-Square analysis was not significant for sex by leadership style categories ($\text{Chi-Square}=1.015$, $p=0.602$). Table 9 presents the means for the primary leadership style; that is, the person's highest score among their four quadrant categories. With their primary leadership style men and women have almost equal means and standard deviations. The primary leadership styles of Selling and Participating show almost equal strength. A clearer picture of the pattern of responses by sex in the four leadership style categories is presented in Table 10. Examining the respondents' primary and secondary styles by sex it can be seen that men and women have the same "back up" or secondary style. Thirty-six percent (36%) of the total analysis sample (241) have a primary Participating style and a secondary Selling style evenly split between men and women. Fourteen percent (14%) of both men and women show a primary Selling and a secondary Participating leadership style. Thus, approximately 65% of the total analysis sample have the same primary and secondary styles of either Participating or Selling evenly split between men and women. It would be important to notice the several "ties" of different combinations of leadership style categories in Table 10. These consisted primarily of ties between the Participating and Selling styles.

Table 7

Means and Standard Deviations of Scores on Leadership Styles by Sex

| Leadership Style | Sex | | | |
|------------------|------|------|--------|------|
| | Male | | Female | |
| | Mean | SD | Mean | SD |
| Telling | 1.78 | 1.21 | 1.60 | 1.04 |
| Selling | 4.78 | 1.84 | 4.51 | 1.97 |
| Participating | 4.67 | 1.89 | 4.66 | 1.98 |
| Delegating | 0.52 | 0.69 | 0.62 | 0.82 |

Table 8

Frequencies of Subjects' Primary Leadership Styles by Sex

| Leadership Style | Sex | |
|------------------|------------------|------------------|
| | Male | Female |
| | (<u>n</u> =104) | (<u>n</u> =103) |
| Telling | 1 | 0 |
| Selling | 50 | 49 |
| Participating | 53 | 54 |
| Delegating | 0 | 0 |

Note: Numbers represent frequency of subjects with that primary style, not including ties. There were 32 ties.

Table 9

Means and Standard Deviations of Scores for Primary Leadership Styles

| Leadership Style | Sex | | | | | |
|------------------|------|----------|------|--------|----------|------|
| | Male | | | Female | | |
| | Mean | <u>n</u> | SD | Mean | <u>n</u> | SD |
| Selling | 6.48 | 50 | 1.16 | 6.26 | 49 | 1.09 |
| Participating | 6.30 | 54 | 1.03 | 6.31 | 54 | 1.04 |

The LEAD-Self also has an adaptability score that ranges from 0 to 36 (normative score) indicating the adaptability and flexibility of the leader in using the leadership styles. The score is derived by assigning values from 0 to 3 to each of the four alternative actions in the 12 work situations (items). The assigned values are based on the appropriateness and probability of success (prescribed in the Situational Leadership Theory, SLT) of the alternative action to the situation, with zero (0) having little probability of success to 3; high probability of success (best fit). The adaptability scores are assigned to three levels; low (0-23) indicating the need for improvement, moderate (24-29) indicating a moderate degree of adaptability with a pronounced leadership style and less flexibility in the secondary styles, and high (30-36) indicating a high degree of adaptability in using the different leadership styles. The results of a Chi-Square analysis for sex by adaptability levels are presented in Table 11. The Chi-Square was non-significant ($F=0.997$; $p=0.613$) indicating males and females did not differ in the frequency of responses assigned to the three adaptability levels. In fact, there is remarkable similarity in the leadership adaptability levels of males and females.

Table 10

Frequencies and Percentages of Subjects' Primary and Secondary Leadership Styles by Sex

| Leadership Styles | Sex | | | |
|---|----------|----------|----------|----------|
| | Male | | Female | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Primary Participating; Secondary Delegating | 0 | 0.00 | 1 | 0.41 |
| Primary Participating; Secondary Selling | 44 | 18.26 | 44 | 18.26 |
| Primary Participating; Secondary Telling | 5 | 2.07 | 4 | 1.66 |
| Primary Selling; Secondary Delegating | 0 | 0.00 | 1 | 0.41 |
| Primary Selling; Secondary Participating | 35 | 14.52 | 35 | 14.52 |
| Primary Selling; Secondary Telling | 8 | 3.32 | 3 | 1.24 |
| 3-way tie between Selling, Telling, and Participating | 1 | 0.41 | 1 | 0.41 |
| Primary Telling; Secondary Selling | 1 | 0.41 | 0 | 0.00 |
| Primary Tie Between Telling and Selling | 2 | 0.83 | 1 | 0.41 |
| Primary Participating; Secondary Tie Between Telling and Selling | 4 | 1.66 | 5 | 2.07 |
| Primary Selling; Secondary Tie Between Telling and Participating | 7 | 2.90 | 10 | 4.15 |
| Primary Delegating; Secondary Participating | 2 | 0.83 | 0 | 0.00 |
| Primary Tie Between Selling and Participating | 14 | 5.81 | 13 | 5.39 |

Table 11

Frequency, Chi-Square, and Probability of Leadership Style Adaptability by Sex

| Leadership Adaptability* | Sex | | | |
|--------------------------|----------|----------|----------|----------|
| | Male | | Female | |
| | <u>n</u> | <u>%</u> | <u>n</u> | <u>%</u> |
| Low | 21 | 8.71 | 16 | 6.64 |
| Moderate | 89 | 36.93 | 88 | 36.51 |
| High | 12 | 4.98 | 15 | 6.22 |

* Chi-Square = 0.977; Probability = 0.613

The mean adaptability score for men was 26.311, SD=2.83 and for women the mean was 26.86, SD=2.60. A t-test between the means for men and women on the adaptability score was not significant (t for H0: equal means was -1.5512, DF=238, $p > T=0.122$). The frequency of the number of 3 (best fit) responses for each of the 12 situations by sex is shown in Table 12. The percentages are of the total number of men and women; i.e. 17.2% of 122, or 12 men, gave a 3 (best fit) response to Situation 1 (item 1). Table 12 also shows the leadership style category associated with the best fit (3) alternative actions. According to the adaptability scoring 3 items per leadership style category are given values of 3 or "best fit." Table 12 shows that men and women were approximately equal in their selection of "best fit" alternative actions. The items (situations) receiving the greatest percentage of best fit responses fell in the leadership style categories of Selling, Participating, and Telling. Appendix D gives the frequencies and percentages of the adaptability scores for each LEAD-Self item (situation) and the Chi-Square analysis results

Table 12

Frequencies and Percentages of "Best Fit" Situation and Readiness Levels

| Group Readiness | Leadership Style Category | Situation Item | Men (n=122) | | Women (n=118) | |
|--------------------|------------------------------|-------------------|-------------|------|---------------|------|
| | | | n | % | n | % |
| R ₁ | Telling | 1 | 21 | 17.2 | 14 | 11.9 |
| R ₂ | Selling | 2 | 55 | 45.1 | 46 | 39.7 |
| R ₃ | Participating | 3 | 40 | 32.8 | 26 | 22.0 |
| R ₄ | Delegating | 4 | 10 | 8.2 | 11 | 9.3 |
| R ₁ | Telling | 5 | 56 | 45.9 | 56 | 47.5 |
| R ₂ | Selling | 6 | 82 | 67.2 | 74 | 62.7 |
| R ₃ | Participating | 7 | 85 | 69.7 | 96 | 81.4 |
| R ₄ | Delegating | 8 | 28 | 23.0 | 32 | 27.4 |
| R ₁ | Telling | 9 | 82 | 67.2 | 83 | 70.3 |
| R ₂ | Selling | 10 | 79 | 64.8 | 78 | 66.1 |
| R ₃ | Participating | 11 | 78 | 63.9 | 85 | 72.0 |
| R ₄ | Delegating | 12 | 12 | 9.9 | 18 | 15.3 |

(Sex by Adaptability values 0-3). All but one of the Chi-Square results were not significant indicating that there was no significant relationship between sex of respondent and adaptability values assigned to each alternative action chosen. For item 12, that did have a significant Chi-Square, two cells had missing values which indicate that the Chi-Square may not have been a valid test for this item.

The ipsative nature of the LEAD-Self prevents interpretable statistical analyses such as Cronbach's alpha to determine reliability and validity. Also, other parametric and inferential analyses such as factor analyses, regression analyses, and MANOVA analyses

cannot be conducted due to the problems created for these analyses by the ipsative characteristics of the LEAD-Self. Greene (1980) has summarized some analyses of the LEAD-Self with regard to reliability and validity. According to Greene the 12-item validities for the adaptability score ranged from .11 to .52 and that 10 of the 12 coefficients (83%) were .25 or higher. Greene concludes that the stability of the LEAD was moderately strong. In two administrations across a six week interval, 75 percent of the 264 managers maintained their dominant style and 71 percent maintained their alternate style. The contingency coefficients were both .71 and each was significant at the $p < .01$ level. The correlation for adaptability scores was .69.

Greene concluded:

Several empirical validity studies were conducted. As hypothesized, correlations with the demographic/ organismic variables of sex, age, years of experience, degree, and management level were generally low, indicating the relative independence of the scales with respect to those variables. (Greene, 1980, p. 1)

Greene reports that in "... another study a significant ($p = .01$) correlation of .67 was found between the adaptability scores of the managers and the independent ratings of their supervisors" (Greene, 1980, p. 1). Greene concludes that based on these findings the LEAD-Self is deemed to be an empirically sound instrument. However, Greene does not give any references or more detail for the studies he mentions. This study suggests that there may be some self rating bias in over selecting responses that produce the leadership styles of Selling and Participating. Also, there is little variability in primary and secondary leadership styles within and between the sexes. With similar findings by Lueder (1985) for the primary leadership style the current study would call into question the validity and possibly the reliability of the LEAD-Self.

Communication Style Measure (CSM) Results

To obtain measures of the internal consistency reliability or interitem consistency for the CSM, Cronbach's alphas were computed for the CSM subscales. These coefficients are presented in Table 13. The results indicate the internal consistency on the CSM subscales is comparable to that reported in other studies (Pruett, 1989; Rybczyk & Allen, 1989; Staley & Cohen, 1988). The standard errors of measurement for the CSM subscales by sex are shown in Table 14. The standard errors of measurement show women having lower standard errors of measure than men across all the CSM subscales except for Dominant and Communicator Image.

Table 13

Cronbach's Alpha for the Communication Subscales by Sex and Total Sample for Raw Variables

| Communication Subscale | Sex | | Total Sample |
|---------------------------|------|--------|--------------|
| | Male | Female | |
| Friendly | 0.56 | 0.60 | 0.60 |
| Impression Leaving | 0.83 | 0.84 | 0.83 |
| Relaxed | 0.67 | 0.77 | 0.72 |
| Contentious Argumentative | 0.71 | 0.78 | 0.75 |
| Attentive | 0.51 | 0.57 | 0.54 |
| Precise | 0.65 | 0.56 | 0.61 |
| Animated/Expressive | 0.59 | 0.72 | 0.68 |
| Dramatic | 0.60 | 0.71 | 0.66 |
| Open | 0.71 | 0.67 | 0.70 |
| Dominant | 0.77 | 0.74 | 0.76 |
| Communicator Image | 0.68 | 0.66 | 0.67 |

Table 14

Standard Errors of Measurement for the CSM by Sex

| CSM Subscale | Male | Female |
|---------------------------|------|--------|
| Friendly | 1.52 | 1.28 |
| Impression Leaving | 0.94 | 0.87 |
| Relaxed | 1.54 | 1.37 |
| Contentious/Argumentative | 1.69 | 1.49 |
| Attentive | 1.44 | 1.36 |
| Precise | 1.92 | 1.71 |
| Animated/Expressive | 1.65 | 1.36 |
| Dramatic | 1.80 | 1.69 |
| Open | 1.59 | 1.57 |
| Dominant | 1.41 | 1.47 |
| Communicator Image | 1.61 | 1.70 |

CSM Correlations

Table 15 presents the Pearson intercorrelations among the CSM subscales, the four leadership style categories, and the leadership adaptability level by sex. For both men and women the correlations among the communication subscales are primarily in the range of .20 to .51. Because of the large sample size all of the lower correlations are significant. Table 16 shows some of the statistically significant higher correlations among the communication style subscales for men and women. Of special interest are the comparisons marked by an asterisk. There are statistically significant differences between the strength of the relationships on these CSM subscales for men and women.

All the correlations between the leadership adaptability and the CSM subscales for men are non-significant. For the women, although low, significant negative correlations

Table 15

Intercorrelations Among the CSM Subscales, LEAD-Self Style Scores, and LEAD-Self Adaptability Scores by Sex

| Male | | | | | | | | | | | | | | | | |
|-------|------|------|-------|------|------|------|------|-------|------|------|-------|-------|------|-------|-------|-------|
| | FRND | IMPL | RELAX | C/A | ATTN | PREC | A/E | DRAM | OPEN | DOM | COMIM | TELL | SELL | PART | DEL | ADAPT |
| FRND | -- | .21* | .19* | -.09 | .33* | -.02 | .07 | -.05 | .21* | .12 | .36* | .02 | -.10 | .04 | -.04 | -.09 |
| IMPL | | -- | .12 | .21* | .24* | .34* | .23* | .34* | .17 | .34* | .38* | -.06 | .12 | .01 | -.01 | -.01 |
| RELAX | | | -- | -.14 | .02 | -.08 | -.15 | .02 | .09 | .14 | .26* | .12 | .06 | .03 | -.07 | -.04 |
| C/A | | | | -- | .08 | .45* | .38* | .35* | .13 | .50* | -.02 | .07 | .05 | -.04 | .02 | .006 |
| ATTN | | | | | -- | .32* | .13 | -.009 | -.02 | .10 | .33* | .06 | -.12 | .04 | -.07 | .04 |
| PREC | | | | | | -- | .25* | .26* | .08 | .37* | .14 | .09 | -.04 | .01 | -.01 | -.005 |
| A/E | | | | | | | -- | .54* | .24* | .39* | .01 | -.09 | -.14 | .06 | .09 | .15 |
| DRAM | | | | | | | | -- | .32* | .53* | .13 | -.12 | -.06 | .17 | .06 | .02 |
| OPEN | | | | | | | | | -- | .46* | .39* | -.19* | -.17 | .25* | .10 | .08 |
| DOM | | | | | | | | | | -- | .32* | -.10 | -.08 | .19* | .09 | .03 |
| COMIM | | | | | | | | | | | -- | -.06 | -.21 | .18* | -.04 | -.03 |
| TELL | | | | | | | | | | | | -- | -.28 | -.42* | .02 | -.27* |
| SELL | | | | | | | | | | | | | -- | -.40* | -.18* | -.03 |
| PART | | | | | | | | | | | | | | -- | -.10 | .06 |
| DEL | | | | | | | | | | | | | | | -- | .38* |
| ADAPT | | | | | | | | | | | | | | | | -- |

Note: Communication Styles: FRND=Friendly; IMPL=Impression Leaving; RELAX=Relaxed; C/A=Contentious/Argumentative; ATTN=Attentive; PREC=Precise; A/E=Animated/Expressive; DRAM=Dramatic; OPEN=Open; DOM=Dominant.

Leadership Styles: TELL=Telling; SELL=Selling; PART=Participating; DEL=Delegating

ADAPT=Adaptability Level

* $p < .05$

Table 15 - Continued

Intercorrelations Among the CSM Subscales, LEAD-Self Style Scores, and LEAD-Self Adaptability Scores by Sex

| Female | | | | | | | | | | | | | | | | |
|--------|------|------|-------|-------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|
| | FRND | IMPL | RELAX | C/A | ATTN | PREC | A/E | DRAM | OPEN | DOM | COMIM | TELL | SELL | PART | DEL | ADAPT |
| FRND | -- | .37* | .24* | -.21* | .37* | .18 | .34* | .26* | .20* | .01 | .41* | .07 | .01 | .09 | -.36* | -.19* |
| IMPL | | -- | .37* | .13 | .30* | .43* | .38* | .30* | .14 | .16 | .39* | .19* | -.07 | -.05 | -.02 | -.21* |
| RELAX | | | -- | .009 | .38* | .30* | .20* | .14 | .24* | .14 | .38* | .006 | -.06 | .03 | .07 | .03 |
| C/A | | | | -- | -.17 | .26* | .22* | .29* | .19 | .42* | -.06 | .01 | .03 | -.16 | .09 | -.09 |
| ATTN | | | | | -- | .34* | .29* | .13 | .05 | -.07 | .39* | -.02 | -.07 | -.008 | -.01 | .07 |
| PREC | | | | | | -- | .17 | .18 | .10 | .13 | .32* | .02 | .08 | -.14 | -.002 | -.11 |
| A/E | | | | | | | -- | .71* | .30* | .45* | .31* | .09 | -.09 | .05 | -.17 | -.21* |
| DRAM | | | | | | | | -- | .38* | .51* | .37* | .08 | -.13 | .10 | -.14 | -.26* |
| OPEN | | | | | | | | | -- | .50* | .31* | -.02 | .04 | .02 | .04 | -.19* |
| DOM | | | | | | | | | | -- | .35* | -.03 | -.04 | -.08 | -.04 | -.24* |
| COMIM | | | | | | | | | | | -- | .05 | -.05 | .008 | -.19* | -.22* |
| TELL | | | | | | | | | | | | -- | -.34* | -.24* | -.10 | -.13 |
| SELL | | | | | | | | | | | | | -- | -.16 | .04 | .03 |
| PART | | | | | | | | | | | | | | -- | -.09 | -.12 |
| DEL | | | | | | | | | | | | | | | -- | .37* |
| ADAPT | | | | | | | | | | | | | | | | -- |

Note: Communication Styles: FRND=Friendly; IMPL=Impression Leaving; RELAX=Relaxed; C/A=Contentious/Argumentative; ATTN=Attentive; PREC=Precise; A/E=Animated/Expressive; DRAM=Dramatic; OPEN=Open; DOM=Dominant.

Leadership Styles: TELL=Telling; SELL=Selling; PART=Participating; DEL=Delegating

ADAPT=Adaptability Level

* p<.05

Table 16

Highest Communicator Style Subscale Correlations by Sex

| Communicator Style Subscales | Men | Women |
|---|------|-------|
| Impression Leaving/Communicator Image | 0.38 | 0.39 |
| Communicator Image/Open | 0.39 | 0.32 |
| Precise/Contentious-Argumentative | 0.45 | 0.26 |
| Animated-Expressive/Contentious-Argumentative | 0.38 | 0.22 |
| Dominant/Contentious-Argumentative | 0.50 | 0.42 |
| Precise/Dominant* | 0.37 | 0.13 |
| Precise/Impression Leaving | 0.34 | 0.43 |
| Dramatic/Animated-Expressive* | 0.54 | 0.71 |
| Dominant/Animated-Expressive | 0.39 | 0.45 |
| Dominant/Dramatic | 0.53 | 0.51 |
| Dominant/Open | 0.46 | 0.50 |
| Communicator Image/Friendly | 0.36 | 0.32 |
| Communicator Image/Relaxed | 0.26 | 0.38 |
| Communicator Image/Attentive | 0.33 | 0.39 |
| Friendly/Impression Leaving | 0.21 | 0.37 |
| Precise/Impression Leaving | 0.34 | 0.43 |
| Friendly/Attentive | 0.33 | 0.37 |
| Impression Leaving/Animated-Expressive | 0.23 | 0.38 |
| Attentive/Relaxed* | 0.02 | 0.38 |
| Impression Leaving/Relaxed* | 0.12 | 0.37 |

* Statistically Significant $p < .05$

($p < .05$) were obtained between adaptability and the CSM subscales of Friendly, Impression Leaving, Animated/Expressive, Dramatic, Open, Dominant, and Communicator Image. The interdependency and resulting very low and negative correlations among the

four leadership style categories is seen in Table 15. As Anastasi (1982) has noted, "with ipsative scores, the mean intercorrelation of individual scales tends to be negative and the mean correlation of all the scales with any outside variable will approach zero" (p. 517). Kerlinger (1973) also has noted that ipsative procedures produce spurious negative correlations between items. Accordingly, the LEAD-correlations are practically meaningless for comparative research (Boone, 1981).

A multivariate analysis of variance was performed on the 11 CSM subscales as dependent measures and sex and years experience as an elementary school principal as independent measures. The results showed only a significant main effect for sex (Wilks' Lambda=0.8234, $F=4.17$, $df=11$, $p>F=.0001$). The main effect for Years Experience as an Elementary School Principal and the interaction effect were not significant. The means, standard deviations, least squares means, and standard errors are presented in Tables 17 and 18. Scheffe's multiple comparison test was applied to the means for men and women on the 11 CSM dependent variable subscales. The results are shown in Table 19. Women showed significantly higher mean scores on the CSM subscales of Friendly, Attentive, Animated/Expressive, Open, and Dominant.

A post-hoc canonical discriminate analysis was performed to determine the relative contributions of the CSM dependent variables to the significant MANOVA main effect for sex. The use of discriminant analysis as a post-hoc test is recommended if there are correlations among the dependent variables (Hair, Anderson, Latham, & Grablovsky, 1979). The purpose of the (canonical) discriminant analysis is to maximize between-group variance with respect to within-group variance for hypothesized groups. MANOVA tests whether the already identified groups are significantly different. When a difference is found discriminant analysis can be used to pick out those variables which best differentiate between the groups (Hair et al., 1979). The pooled within class canonical structure

Table 17

Uncorrected Mean Scores and Standard Deviations on Communication Subscales by Sex

| Subscale | Sex | | | |
|---------------------------|-----------------------|------|-------------------------|------|
| | Male (<u>n</u> =115) | | Female (<u>n</u> =115) | |
| | Mean | SD | Mean | SD |
| Friendly | 15.07 | 2.29 | 16.17 | 2.02 |
| Impression Leaving | 14.96 | 2.27 | 14.95 | 2.18 |
| Relaxed | 13.69 | 2.69 | 14.05 | 2.86 |
| Contentious/Argumentative | 10.43 | 3.14 | 10.08 | 3.18 |
| Attentive | 14.09 | 2.06 | 14.79 | 2.08 |
| Animated/Expressive | 12.65 | 2.57 | 14.29 | 2.58 |
| Precise | 13.00 | 2.67 | 12.89 | 2.47 |
| Dramatic | 11.35 | 2.86 | 11.74 | 3.14 |
| Open | 11.71 | 3.02 | 12.79 | 2.74 |
| Dominant | 10.04 | 2.95 | 11.19 | 2.89 |
| Communicator Image | 18.91 | 2.86 | 18.88 | 2.92 |

coefficients are presented in Table 20. The size of the coefficients show what CSM variables within the group (men and women) are the best discriminators. The highest coefficients (best discriminators) are associated with the CSM variables of Animated/Expressive, Friendly, Open, Dominant, and Attentive. The total canonical structure coefficients (or correlations between the canonical variable, sex and the dependent CSM variables) are shown in Table 21. These coefficients show the same rank order of magnitude as the pooled within class coefficients.

Table 18

General Linear Model Least Squares Means and Standard Errors by Sex for
Communication Style Subscales

| Communication Style Subscales | Sex | | | |
|-------------------------------|--------------|---------|----------------|---------|
| | Male (n=115) | | Female (n=115) | |
| | LSM | STD ERR | LSM | STD ERR |
| Friendly | 15.20 | 0.219 | 16.10 | 0.206 |
| Impression Leaving | 15.03 | 0.227 | 14.87 | 0.213 |
| Relaxed | 13.64 | 0.285 | 14.12 | 0.268 |
| Contentious/Argumentative | 10.48 | 0.324 | 9.99 | 0.305 |
| Attentive | 14.10 | 0.210 | 14.88 | 0.198 |
| Precise | 12.98 | 0.263 | 12.84 | 0.248 |
| Animated/Expressive | 12.96 | 0.260 | 14.27 | 0.245 |
| Dramatic | 11.53 | 0.307 | 11.78 | 0.289 |
| Open | 11.87 | 0.295 | 12.81 | 0.278 |
| Dominant | 10.26 | 0.298 | 11.23 | 0.280 |
| Communicator Image | 18.99 | 0.296 | 18.92 | 0.278 |

Communication Style Measure: Factor Analysis

Norton (1983) reported conducting a factor analysis of the CSM on a random sample of 383 cases from a larger population of 1086 university students. Ten factors emerged in expected patterns based on the theoretical constructs of communicator style and the results of a smallest space analysis (SSA), a form of nonmetric multidimensional scaling. These ten factors paralleled the ten subscales delineated in the SSA analysis. Norton (1983) did not specify what type of factor analysis was conducted nor did he report

Table 19

Scheffe's Test for CSM Subscale Means

| Communication Style Subscales | CSM Means | |
|----------------------------------|-----------|-------|
| | Men | Women |
| Friendly* | 15.07 | 16.17 |
| Impression Leaving | 14.95 | 14.95 |
| Relaxed | 13.69 | 14.05 |
| Contentious/Argumentative | 10.43 | 10.08 |
| Attentive* | 14.09 | 14.79 |
| Precise | 13.00 | 12.89 |
| Animated/Expressive* | 12.65 | 14.29 |
| Dramatic | 11.35 | 11.74 |
| Open* | 11.75 | 12.79 |
| Dominant* | 10.04 | 11.19 |
| Communicator Image | 18.91 | 18.88 |

* $p < .05$ for Critical Value of $F = 3.88$

the factor matrices. He also did not conduct separate analyses for men and women nor did he report the sex frequencies for the sample of 383 cases. A review of the literature did not reveal any subsequent factor analytic studies for the CSM. Factor analyses were conducted in this study to determine if the CSM items would factor out in agreement with the subscales and corresponding items identified by Norton (1983) and to determine if the factor structures were similar for men and women.

Appendix E shows the factor matrices for the maximum likelihood, oblimin rotation (oblique) factor analyses by sex. Ten factors were "forced" to determine if the CSM items

Table 20

Pooled Within Class Canonical Structure Coefficients for CSM Dependent Variables

| CSM Subscales | Canonical Variable (Sex) |
|---------------------------|-----------------------------|
| Animated/Expressive | 0.610 |
| Friendly | 0.490 |
| Open | 0.370 |
| Dominant | 0.330 |
| Attentive | 0.320 |
| Relaxed | 0.110 |
| Dramatic | 0.100 |
| Contentious/Argumentative | -0.140 |
| Precise | -0.060 |
| Impression Leaving | -0.020 |
| Communicator Image | -0.004 |

loaded on the same 11 subscales identified by Norton. The "filler items" (1, 2, 12, 25, 31, and 33) were excluded from the factor analyses. Except for the loadings on some items clustering together in agreement with Norton's subscales, factor loadings below .30 were omitted from the matrices, as shown in Appendix E. Appendix F shows the factor by factor comparison of items for men and women on the oblimin rotation. The factor matrices in Appendix E and the comparisons in Appendix F show: 1) the factor structures are remarkably similar for men and women and 2) the items cluster in the same groups as Norton's (1983) subscales (subconstructs) based on the highest item loadings. There is a clearly identifiable factor structure of items for men and women.

Table 21

Total Canonical Structure Coefficients for CSM Subscales

| CSM Subscales | Canonical Variable (Sex) |
|---------------------------|-----------------------------|
| Animated/Expressive | 0.650 |
| Friendly | 0.530 |
| Open | 0.410 |
| Dominant | 0.370 |
| Attentive | 0.360 |
| Dramatic | 0.120 |
| Relaxed | 0.120 |
| Contentious/Argumentative | -0.150 |
| Precise | -0.070 |
| Impression Leaving | -0.020 |
| Communicator Image | -0.004 |

For men, some of the items have high (greater than .30) loadings on more than one factor, more so than for women. For men two of Norton's Precise items (27 and 32) and two Dramatic items (22 and 32) load highly on factor 1 which also contains high loadings for a Dominant item (28) along with the Communicator Image items. Factor 3 contains the item clusters for the Attentive and Precise subscales. Factor 4 contains the items for the Relaxed subscale. Factor 5 for men does not have any clear clustering of items based on Norton's subscales. Three items, Attentive (20), Precise (13), and Open (24) have high loadings on the corresponding factor. Factor 7 contained the item clusters for the

Animated/Expressive and Dramatic subscales. One Attentive item (11) has a high loading on the factor containing the Friendly subscale items. Factor 8, which contained the Friendly items also contained one Attentive item (11) with a high loading. For the women factor 3 contains the items for the Animated/Expressive and Dramatic subscales. Thus, for both the men and women the items from the Animated/Expressive and Dramatic subscales appear on one factor. Norton (1983) also found this in his factor analysis. For women on factor 4, which contains the Contentious/Argumentative items, one Attentive item (39) and one Animated/Expressive item have high loadings (greater than .30). On factor 5, which contains the Impression Leaving items one Relaxed item (16) and one Precise item (13) have high loadings. Factor 6, containing the Dominant items, has one Animated/Expressive item (44). Factor 8, containing the Communicator Image items has one Dominant item (28) with a high loading. Factor 9, which contains the Precise items, has one Contentious/Argumentative item (10) and one Animated/Expressive item (23) with a high loading. Factor 10, which contains the Friendly item, has one Contentious/Argumentative item (36) with a high loading.

In his factor analysis Norton (1983) found that

the contentious construct defined by three of its original items loaded on the same factor as dominant. Also the dramatic subconstruct (four items) and the animated subconstruct (four items) loaded on the same factor. The attentive subconstruct lost two items. The Friendly subconstruct scattered across factors 5, 7, 8, and 10. (Norton, 1983, p. 93)

In this study the Friendly subscale did appear as a separate factor for men and women. For the Attentive subscale three items (20, 39, 49) had high loadings on its factor for women. For the men two Attentive subscale items (39 and 49) had high loadings on its factor. It is interesting to note from Appendix E that all of the Contentious/Argumentative items for women had negative factor loadings whereas the men's loadings were all positive.

Communication Style: Regression Analysis

A stepwise regression analysis was performed using the 11 CSM subscales as dependent or criterion variables and the following demographic variables as independent or predictor measures: Years in Education, Years as an Elementary School Principal, Years as a Non-Elementary School Principal, Age, Sex, and Race. It was thought that these variables would account for or explain a significant portion of the variance in the 11 CSM subscales. Leadership style adaptability (a metric variable) was included as an independent variable to determine if there was a significant relationship between this variable and the CSM subscales. The demographic variables (with the exception of leadership style adaptability) were dummy coded as listed in Table 22.

Table 23 displays the results of the stepwise analysis showing the final R^2 , the intercept and regression coefficients, the F values for each parameter estimate and the probability levels for the F values. The independent variables are listed in the order they were entered into the model. The .15 level of significance was used for entry into the model. Very little of the variance in the dependent variables is explained or accounted for by the independent variables. The largest R^2 's were obtained for the CSM variables of Friendly (.11), Animated/Expressive (.09), and Open (.09). Although the amount of variability explained by the independent variables is small (2 to 11%), sex is a significant predictor for the CSM variables: Friendly, Attentive, Animated/Expressive, Open, and Dominant. Measuring the demographic variables on an ordinal rather than metric scale may have lowered their predictive power.

The LEAD-Self's leadership adaptability level was a significant predictor only for the CSM variables of Friendly, Dramatic, and Communicator Image. It only added 2% to the explained variability for Friendly, 2% for Dramatic, and 2% for Communicator Image.

Table 22

Dummy Coding of Demographic Variables for Stepwise Regression Analysis

| Variable | Coding |
|--|---|
| Years in Education | 15-19 = 1 20 or more = 0 |
| Years as an Elementary School Principal | 0-4 = 1 5-9 = 0 10 or more = 0 |
| Years as a Non-Elementary School Principal | 0-4 = 1 5-9 = 0 10 or more = 0 |
| Age Range | 31-37 = 1 38-44 = 1 45-52 = 0 52 or over = 0 |
| Sex | Male = 1 Female = 0 |
| Race | Black = 1 White = 0 |

Chapter Summary

There appears to be little difference between men and women elementary school principals on the self ratings of leadership style. Also, no sex difference was found for leadership adaptability levels. The Selling and Participating styles are selected with almost equal frequency as primary and secondary for men and women. The ipsative characteristics of the LEAD-Self prevents the use of inferential and comparative statistical analyses.

The Communicator Style Measure (CSM) shows fairly high internal consistency reliability for both men and women. There were some significant differences between men and women on the CSM subscale intercorrelations. Women showed significantly higher

Table 23

Stepwise Regression Analyses for CSM and Demographic Variables

| CSM Dependent Variable | Independent Variables | Regression Coefficients | R ² | F | Prob>F |
|---------------------------|---|-------------------------|----------------|---------|--------|
| Friendly | | 19.75 Intercept | .11 | 173.20 | .0001 |
| | Sex | -1.064 | | 12.07 | .0006 |
| | Adaptability Level | -0.145 | | 6.85 | .0095 |
| | Years as an Elementary Principal | 0.78 | | 5.77 | .0172 |
| Impression Leaving | (No variables met the $p < .05$ for significance) | | | | |
| Relax | (No variable met the .15 level for entry) | | | | |
| Contentious/Argumentative | | 9.899 Intercept | .02 | 1465.48 | .0001 |
| | Age | -.969 | | 4.08 | .0446 |
| Attentive | | 15.00 Intercept | .05 | 4258.13 | .0001 |
| | Sex | -.735 | | 6.52 | .0114 |
| | Age | -.758 | | 5.75 | .0174 |
| Animated/Expressive | | 14.27 Intercept | .09 | 2909.69 | .0001 |
| | Sex | -1.651 | | 20.42 | .0001 |
| Precise | (No variable met the .15 level for entry) | | | | |

Table 23 - Continued

Stepwise Regression Analyses for CSM and Demographic Variables

| CSM Dependent Variable | Independent Variables | Regression Coefficients | R ² | F | Prob>F |
|------------------------|-----------------------|-------------------------|----------------|---------|--------|
| Dramatic | | 16.26 Intercept | .05 | 64.49 | .0001 |
| | Race | -1.54 | | 7.06 | .008 |
| | Adaptability Level | -0.169 | | 5.01 | .026 |
| Open | | 13.19 Intercept | .09 | 1963.36 | .0001 |
| | Race | -1.97 | | 12.97 | .0021 |
| | Sex | -1.22 | | 9.75 | .0004 |
| Dominant | | 11.03 Intercept | .02 | 1405.57 | .0001 |
| | Sex | -.911 | | 5.03 | .0259 |
| Communicator Image | | 22.89 Intercept | .02 | 136.31 | .0001 |
| | Adaptability Level | -.152 | | 4.36 | .038 |

mean scores on the CSM subscales of Friendly, Attentive, Animated/Expressive, Open, and Dominant as compared to men.

Factor analyses on the CSM for men and women elementary school principals were almost the same as Norton's (1983) subscale grouping of items. The factor structures were remarkably similar for men and women. For men the Attentive and Precise items loaded on a single factor and the Animated/Expressive and Dramatic items loaded on a single factor. For the women only the Animated/Expressive and Dramatic items loaded on a single factor. For the women all the Contentious/Argumentative items had high negative loadings on the corresponding factor whereas the men had high positive loadings on the corresponding factor.

There were significant differences between men and women on important demographic "experience in education" variables. Specifically, 81% of the men had spent 20+ years in education compared to 66.4% for females. More than half (53.2%) of the men had been an elementary school principal for 10+ years, compared to 24% for females.

Of the demographic variables, sex appears to account for the most variability in the CSM subscales of Friendly, Attentive, Animated/Expressive, Open, and Dominant. However, the amount of variability in the overall stepwise models using the demographic variables is small, ranging from 2 to 11%. The practical versus statistical importance of these results would have to be considered. Because of the ipsative characteristics of the LEAD-Self, no links could be made with the communication style measure (CSM). The leadership adaptability level accounted for only 2% of the variability in the three CSM subscales of Friendly, Dramatic, and Communicator Image.

CHAPTER V

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

Discussion

The accurate measurement of constructs is basic to all science. This is especially true for research on leadership and communication style since these are fundamental areas of social behavior. The strengths and limitations of measurement instruments in the leadership and communicator areas have to be determined both for research and training purposes. The measuring devices used for leadership style and communicator style still leave much to be desired in terms of psychometric properties. Also, the theories, constructs, and models developed for leadership and communication may not equally and wholly apply to different groups, such as men and women. This is especially true if the theories, research, and measuring instruments were initially developed on one group exclusively.

This study showed that men and women elementary school principals do not differ in their self-rated leadership style and leadership adaptability levels. The selection of **Selling and Participating** as the primary and secondary styles for both men and women may indicate: 1) a self deception bias towards these styles (Lueder, 1985), 2) a bias towards these styles in current educational practice and literature, or 3) the primary use of these styles in actual elementary school settings. The lack of variability both between and within groups of men and women may signal possible reliability and validity problems with the LEAD-Self as has been discussed in previous research (Blank et al., 1990; Lueder, 1985; Vecchio, 1987). The ipsative characteristics of the LEAD-Self prevent appropriate inferential and comparative statistical analyses and make it questionable for comparative

research. As Kerlinger (1973) has noted, ipsative data cannot be treated normatively. The LEAD-Self's normative adaptability scale is derived from responses to the ipsative scale and in this study did not provide any significant links to communication style. Although ipsative self assessments have their place, for inferential comparative research metric or interval measurements would be preferred.

The CSM shows fairly high internal consistency reliabilities, similar to those reported in the literature. These reliabilities are comparable for men and women. The factors identified in this study are almost the same as the subscales (subconstructs) reported by Norton (1983). This holds true for men and women. The factor structures for men and women are remarkably similar. For men and women the Animated/Expressive and Dramatic items load on a single factor. For men the Attentive and Precise items load on a single factor. The Cronbach alphas and the factor analyses results indicated that the CSM is a valid instrument for research purposes.

Demographic information such as age, sex, race, and years of experience is important to collect in research especially on leadership and communication styles. This study showed, for example, that there were significant relationships between sex and experience variables such as years experience as an elementary school principal. However, the demographic variables did not account for a practically significant amount of variance in the communication style variables as indicated by the stepwise regression analyses. Also, the results of the MANOVA did not show a significant main effect for years experience as an elementary school principal or a significant interaction between sex and years as an elementary school principal. A significant main effect was found for sex. Follow up analyses indicated significant differences among the CSM subscales of Friendly, Attentive, Animated/Expressive, Open, and Dominant between men and women, with women showing significantly higher on these dimensions. Similar differences were found in

studies and discussions by Baird and Bradley (1979), Montgomery and Norton (1981), Pruett (1989), and Shakeshaft (1989). In a review of the literature Staley and Cohen (1988) report that

previous research profiles indicate fairly distinct male versus female communication styles. Male communications are: more dominant, argumentative, and verbally aggressive, relaxed and dramatic while females demonstrate more friendliness, openness, and nonverbal animation, particularly in terms of eye contact and facial expressions. According to a preponderance of the literature males are more assertive and females more responsive. (p. 193)

It has also been found that men rate themselves as more precise and contentious communicators than females while females report higher levels of animated communication styles (Staley & Cohen, 1988). Pruett (1989) reported (in a meta-analysis of 8 studies) that women reported being significantly more animated and attentive than men. Men reported higher means on the dominant, dramatic, contentious, and relaxed variables. When analyzing communication variables across "self report" and "others report" studies women showed higher mean scores on attentive, animated, open, and friendly dimensions while males' scores were higher on the dramatic, contentious, and dominant dimensions. This study, however, found women to have a significantly higher mean score on the dominant dimension than men, with no differences on the relaxed, precise, dramatic, impression leaving, contentious/argumentative, and communicator image dimensions. It would appear that women elementary school principals rate themselves as being more dominant or assertive in communication situations compared to male principals.

The question of whether there are important sex differences in the underlying constructs of leadership style is not fully answered in this study. However, with regards to communication style there appears to be important differences as well as similarities between men and women. There appear to be significant differences in how men and women rate their communication behaviors in the areas of Friendliness, Attentiveness,

Animated/ Expressiveness, Openness, and Dominance. Thus, there does appear to be some validity to the assertion that in developing theoretical constructs it would be important to obtain separate data on men and women (Shakeshaft, 1989).

Implications

From the literature review the following implications can be drawn:

1. It is extremely important to review the psychometric data including validity and reliability data on research and training instruments before they are used. Any significant group differences (such as sex differences) should be reported and the implications discussed. The contexts and types of research in interaction with the properties of instruments should be more clearly delineated.
2. Self assessments of Leadership and communication style do not indicate effectiveness in these areas.
3. Communication behaviors or styles may or may not be related to leadership style and leadership effectiveness.
4. Men and women may be influenced in their communication style and perception of each other's communication behaviors by cultural stereotypes and traditions. Social expectations and norms and traditional roles produce differing communication styles. Masculine (traditional) men have stereotypically been seen as the dominant, more powerful, more contentious sex. Traditionally men tell stories (dramatic) while women listen (attentive). Women have been and still are expected to be responsive (attentive, animated/ expressive), open, and friendly. Women are touched and touch more than men; they allow their personal space to be invaded more often than do men (Pruett, 1989).

The following implications can be drawn from the results of this study:

1. The LEAD-Self should not be used for normative comparative research.

Modifications of the LEAD-Self as developed by Boone (1981) to a more metric scale might be appropriate.

2. The leadership styles of Selling and Participating may be reinforced more in educational organizations, may be the required styles based on the unique characteristics of educational organizations, or may simply be the "hot" preferred styles based on popular literature and current stereotypes.

3. Men and women may make similar leadership decisions but may communicate these decisions in different ways. The lack of differences on the self rated leadership style dimensions raises the question as to what effects the sex differences on the communication style variables have for leadership style and effectiveness.

4. The CSM appears to be a sound instrument for research and training purposes.

5. The development of theory and constructs for communication style needs to address the similarities and differences between men and women in how they perceive and rate their communication behavior. Men and women may have subtle differences in how they interpret, express, and use communication behaviors, especially dominant communication behaviors.

6. Sex differences in communication style would have direct implications for leadership and communication training. To communicate better it is important to recognize the similarities and differences in the person with which we wish to communicate. Recognizing that subtle differences exist in male and female communication styles allows one to adapt both to individuals and situations and allows for less chance of misunderstanding and disagreement (Pruett, 1989). Matching communication styles with (leadership) work situations may be as important as trying to match leadership styles.

Recommendations

The current research should be replicated using a metrically scaled leadership measure such as the LBDQ-XII to allow linkages (such as correlations) with communication style. More studies need to be done examining the relationships between leadership style and effectiveness with communication style and effectiveness for men and women separately. Factor analytic studies of subordinate responses to instruments rating leadership and communicator effectiveness would be especially important. Follow up research should be conducted using the same sample to collect effectiveness ratings from subordinates in the areas of leadership and communication style. It would be important to try and link self-rated leadership style and leadership effectiveness with communication style and effectiveness to determine where significant differences, if any, exist for men and women. Instruments to measure communication style, leadership style, and effectiveness specific to educational organizations need to be developed. More research needs to be done using subordinate (teacher) measurements of principals' effectiveness as leaders and especially as communicators.

Communication characteristics of an effective leader would be useful information for training and education purposes. Further research in the area of communication and leadership style might focus on how stereotypes, traditions, and role demands affect leadership and communication style and effectiveness behavior.

Communication style and effectiveness needs more attention in leadership education and training. Sex differences due to stereotyped communication behaviors and perceptions of communication behaviors need to be discussed more thoroughly. One significant question to address would be: Are there inherent sex differences between men and women in communication behavior and leadership behavior or are all differences the result of differential socialization and stereotyping? And if men and women communicate and

understand communication information differently, what does this mean for leadership and leadership effectiveness?

This study clearly showed that the women have not been elementary school principals as long as the men and have less total years in education. Also, more men have been elementary school principals longer than women. The role of experience and differing paths to leadership roles in the development and expression of leadership communication for men and women would be an important area for future research.

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APPENDIX A
SURVEY COVER LETTERS
AND REMINDER POSTCARD

PLEASE NOTE

The original document received by UMI
contained pages with indistinct print.
Pages were filmed as received.

This reproduction is the best copy available.

UMI

School of Education

Department of Educational Administration,
Higher Education, and Educational Research

Gary Baskin, UNCG
Greensboro, NC 27412-5001 USA
(919) 334 5100 Fax (919) 334 5009

THE
UNIVERSITY
OF
NORTH
CAROLINA
AT
GREENSBORO

Daniel B. Watkins, Doctoral Student
University of North Carolina - Greensboro
School of Education
Department of Educational Administration
and Leadership
P. O. Box 989
Greensboro, North Carolina 27402

Dear

Literally thousands of studies have been done on the topic of leadership style and communication style. However, little research has attempted to look at both together, especially the psychometric qualities of instruments used to measure each style.

You have been randomly selected from an alphabetized list of elementary school principals across the State of North Carolina to participate in a study of two leadership and communication style instruments. Demographic information will also be collected. The information from the responses of you and your colleagues will provide much needed data on communication and leadership style. The results of this study will also have important implications for inservice training, self-awareness, and organizational developmental needs of practicing educational administrators.

Enclosed is a packet of materials that I am asking you to complete and return in the enclosed stamped and pre-addressed envelope within the next week. Your completion of these assessment instruments (2) and the demographic questionnaire is vital to the success of this study. In order for the results to accurately reflect the leadership and communication styles of elementary school principals in North Carolina, it is extremely important that you complete and return the packet of materials to me at the post office box listed below within the next week. A new sophisticated computer analysis program that requires a large sample will be used to analyze the data. This makes it extremely important that everyone return their completed instruments.

You may be assured of complete confidentiality. You will notice that on the questionnaires a number is stamped in the upper right hand corner. This number is used to solely account for the distributed

Page 2

questionnaires as they are returned and to re-mail packets if any are lost or misplaced.

Your responses will be added to the total data base in order to maintain your anonymity. No individual response records will be maintained nor reported to any other researchers. Your name will never be placed on or associated with your answer documents.

The results of this study should be very beneficial to the practice of elementary school principals, to university training programs, as well as to your school system's staff development and training programs in the areas of communication and leadership.

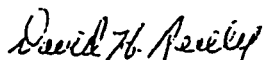
If you would like a summary of the overall study results, you may receive one by writing "Yes" on the back of the return envelop in which you will return your questionnaire and the two other assessment instruments. Please include your name and current address. The envelopes will be disposed of once you have been sent your summary.

If you have any questions please write or call. My work phone number is (919) 370-8170. If you write you can write to the university address listed above. If I am not in when you call, please leave your name and phone number and a convenient time that I may return your call.

I want to thank you in advance for your assistance and cooperation in this important and vital study.

Please note that according to university policy, returning the completed instruments and questionnaire indicates your consent to participate in this research study.

Sincerely,



Dr. David H. Reilly,
Professor and Doctoral Chairperson
Dean, Graduate Studies
The Citadel
Charleston, South Carolina



Daniel B. Watkins,
Doctoral Student
Educational Administration
and Leadership

RETURN COMPLETED MATERIALS TO:

Daniel B. Watkins
P. O. Box 5070
Greensboro, NC 27435

School of Education

Department of Educational Administration
Higher Education and Educational Research

Greensboro, NC 27402-5000 USA
(919) 374-5100 Fax (919) 371-5060

THE
UNIVERSITY
OF
NORTH
CAROLINA
AT
GREENSBORO

May 12, 1992

About three weeks ago we sent you a packet of materials that dealt with a leadership and communication study. Also enclosed was a short demographic questionnaire. As of this date we have not received your completed packet.

This research will provide normative data on the self perceived communication and leadership styles of elementary principals in our state. The research will also look at the construct validity and other psychometric properties of the instruments to determine their appropriateness as assessment instruments.

We are writing to you again because of the significance each packet has to the usefulness and accuracy of the study. Your name was randomly drawn from a list of all elementary principals our state. Only 400 out of all the elementary principals were sent packets. In order for the results to be truly representative of the "styles" of principals it is essential that each person in the sample return their 3 completed instruments.

In the event that your packet has been misplaced, or was not received, a replacement is enclosed. Your packet should have contained the LEAD SELF instrument, The Communication Style Measure and a short Demographic questionnaire. Actual timing of principals completing these instruments indicate it takes only a few minutes.

Your cooperation is greatly appreciated.

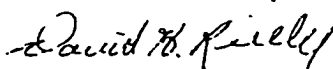
Cordially,

Daniel B. Watkins



Doctoral Student in
Educational Administration
and Leadership
The University of North Carolina
at Greensboro

Dr. David H. Reilly



Dean of Graduate Studies
The Citadel
Charleston, South Carolina

GENERAL INSTRUCTIONS FOR COMPLETING THE TWO INSTRUMENTS AND
THE DEMOGRAPHIC QUESTIONNAIRE

EACH OF THE THREE INSTRUMENTS HAS THE SPECIFIC INSTRUCTIONS ON IT. PLEASE READ AND FOLLOW THESE CAREFULLY. IT IS VERY IMPORTANT THAT YOU ANSWER EVERY ITEM BECAUSE WE WILL BE LOOKING AT ITEM RESPONSES AS WELL AS SCALE AND TOTAL SCORES.

PLEASE TRY AND RETURN YOUR COMPLETED PACKET TO THE ADDRESS ON THE SECOND PAGE OF THE COVER LETTER WITHIN TWO WEEKS. IT SHOULD NOT TAKE YOU LONG TO COMPLETE ALL THREE INSTRUMENTS. SINCE WE ARE DOING A RANDOM SAMPLE OF THE STATE, YOUR RESPONSES WILL ACTUALLY REPRESENT MORE THAN ONE PERSON. IT IS FOR THIS REASON THAT IT IS SO IMPORTANT FOR YOU TO COMPLETE THE INSTRUMENTS AND RETURN THEM. YOUR HELP AND COOPERATION IS MUCH APPRECIATED FOR THIS IMPORTANT STUDY.

YOU ARE RETURNING THE INSTRUMENTS TO MY PRIVATE P. O. BOX TO FURTHER INSURE THAT NO ONE BUT I WILL SEE YOUR RESPONSES.

THANK YOU VERY MUCH FOR YOUR HELP, IT IS MUCH APPRECIATED.

DANIEL B. WATKINS
DOCTORAL STUDENT IN EDUCATIONAL
ADMINISTRATION AND LEADERSHIP
UNIVERSITY OF NORTH CAROLINA AT GREENSBORO
SCHOOL OF EDUCATION
CURRY BUILDING
GREENSBORO, N. C. 27412-5001

April 30, 1993

A few days ago a packet of materials concerning a leadership and communication study was mailed to you. Your name was randomly drawn from a list of elementary principals in our state.

If you have already completed and returned the three assessment instruments please accept my sincere thanks. If not please complete them as soon as possible. Because the packets were sent to a small but representative sample of principals it is extremely important that yours also be included in the study if the results are to accurately represent the elementary principals in our state.

If you did not receive the packet, or it got misplaced please call me today at 919-370-8170 and I will mail another one to you.

Sincerely,



Daniel B. Watkins
Education Administration, UNC-G
Greensboro, N.C.

APPENDIX B
INSTRUMENTS

COMMUNICATION STYLE MEASURE

Communication Style Measure (CSM)

Subscale Definitions (Norton, 1983, pp. 65-72)

Friendly - The friendly communicator confirms, strokes, and positively recognizes the other. It ranges from simple lack of hostility to deep intimacy.

Impression Leaving - The communicator is remembered because of the communicative stimuli he or she projects. They have a visible or memorable style of communicating.

Relaxed - This style suggests either calmness/peace/serenity or confidence/comfortableness. An assumption is that to the degree the person manifests anxiety the relaxed style will not be manifested, a relaxed communicator is calm and collected, relatively free from nervousness and anxiety in his/her communication (Montgomery & Norton, 1981).

Contentious/Argumentative - The contentious communicator is argumentative. Contentiousness refers to negative connotations associated with argumentative and aggressive behaviors.

Attentive - The attentive communicator makes sure that the other person knows that he or she is being listened to. It involves listening and empathy and is inversely related to dominant, dramatic, contentious, and animated. Attentive reflects social sensitivity.

Precise - Preciseness focuses on those behaviors which communicate a concern for accuracy, documentation, and proof in informative and argumentative discourse (Montgomery & Norton, 1981).

Animated/Expressive - An animated style is characterized by the frequency, amount and intensity of such behaviors as eye contact, gestures, facial expressions, and body movement. It involves active, high energy expending behaviors that exaggerate or color communication content (Montgomery & Norton, 1981).

Dramatic - The dramatic communicator manipulates exaggerations, fantasies, stories, metaphors, rhythm, voice, and other stylistic devices to highlight or understate content.

Open - The open communicator readily reveals personal information about the self in communicative interactions. The content of the message is representative of the communicator's actual feeling, beliefs, and opinions.

Dominant - The dominant communicator is one who tends to take control in social interactions. It involves any communication device or strategy which lessens the communication role of another. Dominant communication relates to assertiveness. The person who communicates in a dominant way appears to be more confident, enthusiastic, forceful, active, competitive, self confident, self-assured, conceited and businesslike and also tends to feel more understood in communicating with others.

Communicator Image - A person's self image of their communicative ability and their effectiveness in communicating.

ITEMS FROM THE COMMUNICATOR STYLE MEASURE

(Norton, 1983)

FRIENDLY

- 3 I readily express admiration for others.
- 6 To be friendly, I habitually acknowledge verbally other's contributions.
- 46 Whenever I communicate, I tend to be very encouraging to people.
- 38 I am always an extremely attentive communicator.

IMPRESSION LEAVING

- 4 What I say usually leaves an impression on people.
- 5 I leave people with an impression of me which they definitely tend to remember.
- 45 The way I say something usually leaves an impression on people.
- 14 I leave a definite impression on people.

RELAXED

- 8 I have some nervous mannerisms in my speech.
- 16 Under pressure I come across as a relaxed speaker.
- 15 The rhythm or flow of my speech is not affected by nervousness.
- 9 I am a very relaxed communicator.

CONTENTIOUS/ARGUMENTATIVE

- 10 When I disagree with somebody I am very quick to challenge them.
- 37 Once I get wound up in a heated discussion, I have a hard time stopping myself.
- 42 It bothers me to drop an argument that is not resolved.
- 36 I am very argumentative.

ATTENTIVE

- 39 I really like to listen very carefully to people.
- 11 I can always repeat back to a person exactly what was meant.
- 20 Usually, I deliberately react in such a way that people know that I am listening to them.
- 49 I am an extremely attentive communicator.

PRECISE

- 40 Very often I insist that other people document or present some kind of proof for what they are arguing.
- 30 I like to be strictly accurate when I communicate.
- 27 In arguments I insist upon very precise definitions.
- 13 I am a very precise communicator.

ANIMATED/EXPRESSIVE

- 17 My eyes reflect exactly what I am feeling when I communicate.
- 23 I tend to constantly gesture when I communicate.
- 47 I actively use a lot of facial expressions when I communicate.
- 44 I am very expressive nonverbally in social situations.

DRAMATIC

- 22 Regularly I tell jokes, anecdotes, and stories when I communicate.
- 32 Often I physically and verbally act out what I want to communicate.
- 48 I very frequently verbally exaggerate to emphasize a point.
- 18 I dramatize a lot.

ITEMS FROM THE COMMUNICATOR STYLE MEASURE - Continued

OPEN

- 50 As a rule, I openly express my feelings and emotions.
- 34 I readily reveal personal things about myself.
- 21 Usually I tell people a lot about myself even if I do not know them well.
- 24 I am an extremely open communicator.

DOMINANT

- 43 In most social situations I tend to come on strong.
- 28 In most social situations I generally speak very frequently.
- 41 I try to take charge of things when I am with people.
- 35 I am dominant in social situations.

COMMUNICATOR IMAGE

- 7 I am a very good communicator.
 - 19 I always find it very easy to communicate on a one-to-one basis with strangers.
 - 26 In a small group of strangers I am a very good communicator.
 - 29 I find it extremely easy to maintain a conversation with a member of the opposite sex whom I have just met.
-

KEY TO SCORING THE
COMMUNICATOR STYLE INSTRUMENT
(Norton, 1983, pp. 288-289)

1. Only 45 items are scored. Ten subconstructs with four items per subconstruct can be treated as independent variables. One subconstruct, Communicator Image, can be treated as a dependent variable. Items 1, 2, 12, 25, 31, and 33 are filler items and should be ignored.

2. It is advisable, although not necessary, to convert scores for the respective items to z scores and then average them for the subconstruct.

3. Use the following weights for the responses: YES!=5; yes=4; ?=3; no=2; NO!=1.

4. Be sure to attend to missing data. It can be treated several ways depending upon the reasonable argument. One way would be to substitute the mean score for the respective item for the missing value. A second way would be to replace the missing value with 3, the expected mean. The former option is advised.

5. Before averaging the items, reverse the score where indicated in the key. If the person got a 4 for that item, give it a 2. If a person got a 2 for that item, give it a 4. If a person got a 1 for that item, give it a 5. The items that should be reversed are indicated by R.

| | Max Score | | | | |
|---------------------------|-----------|----|-----|----|----|
| Friendly | 3 | 6 | 38 | 46 | 20 |
| Impression Leaving | 4 | 5 | 14 | 45 | 20 |
| Relaxed | 8R | 9 | 15R | 16 | 20 |
| Contentious/Argumentative | 10 | 36 | 37 | 42 | 20 |
| Attentive | 11 | 20 | 39 | 49 | 20 |
| Precise | 13 | 27 | 30 | 40 | 20 |
| Animated/Expressive | 17 | 23 | 44 | 47 | 20 |
| Dramatic | 18 | 22 | 32 | 48 | 20 |
| Open | 21R | 24 | 34 | 50 | 20 |
| Dominant | 28 | 35 | 41 | 43 | 20 |
| <hr/> | | | | | |
| Communicator Image | 7 | 19 | 26 | 29 | 51 |
| | | | 26 | | |

The higher the person's score on the subscale the more characteristic this attribute is of the person's communicator style.

Instrument II

Code No. _____

COMMUNICATOR STYLE MEASURE

You have impressions of yourself as a communicator. The impressions include your sense of the way you communicate. This measure focuses upon your sensitivity to the way you communicate or what is called your communicator style.

The questions are not designed to look at what is communicated; rather, they explore the way you communicate.

Because there is no such thing as a "correct" style of communication, none of the following items have right or wrong answers.

Please do not spend too much time on the items. Let your first inclination be your guide. Try to answer as honestly as possible. All responses will be strictly confidential.

Some questions will be difficult to answer because you honestly do not know. For these questions, however, please try to determine which way you are leaning and answer in the appropriate direction.

The following scale is used for each item:

YES! = Strong agreement with the statement
 yes = agreement with the statement
 ? = neither agreement nor disagreement with the statement
 no = disagreement with the statement
 NO! = strong disagreement with the statement

For example, if you agree with the following statement, "I really dislike the coldness of winter" then you would circle the "YES" as indicated:

NO! no ? yes YES!

Some of the items will be similarly stated. But each item has a slightly different orientation. Try to answer each question as though it were the only question being asked.

Finally, answer each item as it relates to a general face-to-face communication situation -- namely, the type of communicator you are most often.

Thank you for your help.

| | | | | | |
|---|-----|----|---|-----|------|
| 1. I am comfortable with all varieties of people. | NO! | no | ? | yes | YES! |
| 2. I laugh easily. | NO! | no | ? | yes | YES! |
| 3. I readily express admiration for others. | NO! | no | ? | yes | YES! |
| 4. What I say usually leaves an impression on people | NO! | no | ? | yes | YES! |
| 5. I leave people with an impression of me which they definitely tend to remember. | NO! | no | ? | yes | YES! |
| 6. To be friendly, I habitually acknowledge verbally other's contributions. | NO! | no | ? | yes | YES! |
| 7. I am a very good communicator. | NO! | no | ? | yes | YES! |
| 8. I have some nervous mannerisms in my speech. | NO! | no | ? | yes | YES! |
| 9. I am a very relaxed communicator. | NO! | no | ? | yes | YES! |
| 10. When I disagree with somebody I am very quick to challenge them. | NO! | no | ? | yes | YES! |
| 11. I can always repeat back to a person exactly what was meant. | NO! | no | ? | yes | YES! |
| 12. The sound of my voice is very easy to recognize. | NO! | no | ? | yes | YES! |
| 13. I am a very precise communicator. | NO! | no | ? | yes | YES! |
| 14. I leave a definite impression on people. | NO! | no | ? | yes | YES! |
| 15. The rhythm or flow of my speech is sometimes affected by my nervousness. | NO! | no | ? | yes | YES! |
| 16. Under pressure I come across as a relaxed speaker. | NO! | no | ? | yes | YES! |
| 17. My eyes reflect exactly what I am feeling when I communicate. | NO! | no | ? | yes | YES! |
| 18. I dramatize a lot. | NO! | no | ? | yes | YES! |
| 19. I always find it very easy to communicate on a one-to-one basis with strangers. | NO! | no | ? | yes | YES! |
| 20. Usually, I deliberately react in such a way that people know that I am listening to them. | NO! | no | ? | yes | YES! |
| 21. Usually I do not tell people much about myself until I get to know them well. | NO! | no | ? | yes | YES! |
| 22. Regularly, I tell jokes, anecdotes and stories when I communicate. | NO! | no | ? | yes | YES! |

| | | | | | |
|---|-----|----|---|-----|------|
| 23. I tend to constantly gesture when I communicate. | NO! | no | ? | yes | YES! |
| 24. I am an extremely open communicator. | NO! | no | ? | yes | YES! |
| 25. I am vocally a loud communicator. | NO! | no | ? | yes | YES! |
| 26. In a small group of strangers I am a very good communicator. | NO! | no | ? | yes | YES! |
| 27. In arguments I insist upon very precise definitions. | NO! | no | ? | yes | YES! |
| 28. In most social situations I generally speak very frequently. | NO! | no | ? | yes | YES! |
| 29. I find it extremely easy to maintain a conversation with a member of the opposite sex whom I have just met. | NO! | no | ? | yes | YES! |
| 30. I like to be strictly accurate when I communicate. | NO! | no | ? | yes | YES! |
| 31. Because I have a loud voice I can easily break into a conversation. | NO! | no | ? | yes | YES! |
| 32. Often I physically and vocally act out what I want to communicate. | NO! | no | ? | yes | YES! |
| 33. I have an assertive voice. | NO! | no | ? | yes | YES! |
| 34. I readily reveal personal things about myself. | NO! | no | ? | yes | YES! |
| 35. I am dominant in social situations. | NO! | no | ? | yes | YES! |
| 36. I am very argumentative. | NO! | no | ? | yes | YES! |
| 37. Once I get wound up in a heated discussion I have a hard time stopping myself. | NO! | no | ? | yes | YES! |
| 38. I am always an extremely friendly communicator. | NO! | no | ? | yes | YES! |
| 39. I really like to listen very carefully to people. | NO! | no | ? | yes | YES! |
| 40. Very often I insist that other people document or present some kind of proof for what they are arguing. | NO! | no | ? | yes | YES! |
| 41. I try to take charge of things when I am with people. | NO! | no | ? | yes | YES! |
| 42. It bothers me to drop an argument that is not resolved. | NO! | no | ? | yes | YES! |
| 43. In most social situations I tend to come on strong. | NO! | no | ? | yes | YES! |

44. I am very expressive nonverbally in social situations. NO! no ? yes YES!
45. The way I say something usually leaves an impression on people. NO! no ? yes YES!
46. Whenever I communicate, I tend to be very encouraging to people. NO! no ? yes YES!
47. I actively use a lot of facial expressions when I communicate. NO! no ? yes YES!
48. I very frequently verbally exaggerate to emphasize a point. NO! no ? yes YES!
49. I am an extremely attentive communicator. NO! no ? yes YES!
50. As a rule, I openly express my feelings and emotions. NO! no ? yes YES!
51. Out of a random group of six people, including myself, I would probably have a better communicator style than: (circle one choice)

| | | | | | |
|--------------|--------------|--------------|--------------|--------------|-----------------|
| 5 of them | 4 of them | 3 of them | 2 of them | 1 of them | None of them |
|--------------|--------------|--------------|--------------|--------------|-----------------|

From Communicator Style, Robert Norton, Sage, 1983.

LEAD-SELF ASSESSMENT INSTRUMENT



LEAD SELF

Leadership Style/Perception of Self

Developed by Paul H. Jersey and Kenneth H. Blanchard

Your name _____

PURPOSE

The purpose of this instrument is to evaluate your perception of your leadership style in terms of "telling," "selling," "participating," or "delegating," and to indicate whether the style is appropriate in various situations.

INSTRUCTIONS

Assume you are involved in each of the following twelve situations. Each situation has four alternative actions you might initiate. Read each item carefully. Think about what you would do in each circumstance. Then, circle the letter of the alternative action choice which you think would most closely describe your behavior in the situation presented. Circle only *one* choice.

After you have circled one choice for each situation, use the "LEAD Directions for Self-Scoring and Analysis" to score and array the data.

Leader Effectiveness & Adaptability Description

Copyright © 1971-1988 by Leadership Studies, Inc. All rights reserved.

1. SITUATION

Your followers are not responding lately to your friendly conversation and obvious concern for their welfare. Their performance is declining rapidly.

ALTERNATIVE ACTIONS

You would . . .

- A. Emphasize the use of uniform procedures and the necessity for task accomplishment.
- B. Make yourself available for discussion but not push your involvement.
- C. Talk with followers and then set goals.
- D. Intentionally not intervene.

2. SITUATION

The observable performance of your group is increasing. You have been making sure that all members were aware of their responsibilities and expected standards of performance.

ALTERNATIVE ACTIONS

You would . . .

- A. Engage in friendly interaction, but continue to make sure that all members are aware of their responsibilities and expected standards of performance.
- B. Take no definite action.
- C. Do what you can to make the group feel important and involved.
- D. Emphasize the importance of deadlines and tasks.

3. SITUATION

Members of your group are unable to solve a problem. You have normally left them alone. Group performance and interpersonal relations have been good.

ALTERNATIVE ACTIONS

You would . . .

- A. Work with the group and together engage in problem solving.
- B. Let the group work it out.
- C. Act quickly and firmly to correct and redirect.
- D. Encourage the group to work on the problem and be supportive of their efforts.

4. SITUATION

You are considering a change. Your followers have a fine record of accomplishment. They respect the need for change.

ALTERNATIVE ACTIONS

You would . . .

- A. Allow group involvement in developing the change, but not be too directive.
- B. Announce changes and then implement with close supervision.
- C. Allow the group to formulate its own direction.
- D. Incorporate group recommendations, but you direct the change.

5. SITUATION

The performance of your group has been dropping during the last few months. Members have been unconcerned with meeting objectives. Redefining roles and responsibilities has helped in the past. They have continually needed reminding to have their tasks done on time.

ALTERNATIVE ACTIONS

You would . . .

- A. Allow the group to formulate its own direction.
- B. Incorporate group recommendations, but see that objectives are met.
- C. Redefine roles and responsibilities and supervise carefully.
- D. Allow group involvement in determining roles and responsibilities, but not be too directive.

6. SITUATION

You stepped into an efficiently run organization. The previous administrator tightly controlled the situation. You want to maintain a productive situation, but would like to begin humanizing the environment.

ALTERNATIVE ACTIONS

You would . . .

- A. Do what you can to make the group feel important and involved.
- B. Emphasize the importance of deadlines and tasks.
- C. Intentionally not intervene.
- D. Get the group involved in decision making, but see that objectives are met.

7. SITUATION

You are considering changing to a structure that will be new to your group. Members of the group have made suggestions about needed change. The group has been productive and demonstrated flexibility in its operations.

ALTERNATIVE ACTIONS

You would . . .

- A. Define the change and supervise carefully.
- B. Participate with the group in developing the change, but allow members to organize the implementation.
- C. Be willing to make changes as recommended, but maintain control of implementation.
- D. Avoid confrontation; leave things alone.

8. SITUATION

Group performance and interpersonal relations are good. You feel somewhat insecure about your lack of direction of the group.

ALTERNATIVE ACTIONS

You would . . .

- A. Leave the group alone.
- B. Discuss the situation with the group and then initiate necessary changes.
- C. Take steps to direct followers toward working in a well-defined manner.
- D. Be supportive in discussing the situation with the group, but not too directive.

9. SITUATION

Your boss has appointed you to head a task force that is far overdue in making requested recommendations for change. The group is not clear on its goals. Attendance at sessions has been poor. Their meetings have turned into social gatherings. Potentially, they have the talent necessary to help.

ALTERNATIVE ACTIONS

You would . . .

- A. Let the group work out its problems.
- B. Incorporate group recommendations, but see that objectives are met.
- C. Redefine goals and supervise carefully.
- D. Allow group involvement in setting goals, but not push.

10. SITUATION

Your followers, usually able to take responsibility, are not responding to your recent redefining of standards.

ALTERNATIVE ACTIONS

You would . . .

- A. Allow group involvement in redefining standards, but not take control.
- B. Redefine standards and supervise carefully.
- C. Avoid confrontation by not applying pressure; leave the situation alone.
- D. Incorporate group recommendations, but see that new standards are met.

11. SITUATION

You have been promoted to a new position. The previous supervisor was uninvolved in the affairs of the group. The group has adequately handled its tasks and direction. Group interrelations are good.

ALTERNATIVE ACTIONS

You would . . .

- A. Take steps to direct followers toward working in a well-defined manner.
- B. Involve followers in decision making and reinforce good contributions.
- C. Discuss past performance with the group and then examine the need for new practices.
- D. Continue to leave the group alone.

12. SITUATION

Recent information indicates some internal difficulties among followers. The group has a remarkable record of accomplishment. Members have effectively maintained long-range goals. They have worked in harmony for the past year. All are well qualified for the task.

ALTERNATIVE ACTIONS

You would . . .

- A. Try out your solution with followers and examine the need for new practices.
- B. Allow group members to work it out themselves.
- C. Act quickly and firmly to correct and redirect.
- D. Participate in problem discussion while providing support for followers.

Address inquiries or orders to:

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8517 Production Avenue
San Diego, California 92121
(619) 578-5900
FAX: (619) 578-2042

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019



LEAD

DIRECTIONS

Directions for Self-Scoring and Analysis

Developed by Center for Leadership Studies, Inc.

Name of person being scored _____

PURPOSE

This booklet provides information on aspects of your leadership style, and is used to tabulate the responses on both the *LEAD* Self and the *LEAD* Other instruments.

When using these directions with the *LEAD* Self, the resulting information provides insight into **your perception** of your leadership style usage.

If you are scoring a *LEAD* Other instrument, your results provide vital information about how your leadership style is **perceived by others**.

After the scoring is complete, this booklet shows which leadership styles you use. You will also be able to determine to what extent the behaviors you use, while attempting to influence others, are a match to the needs of others. In fact, it provides for a complete cross-reference of the other's needs expressed in each situation and the leadership behaviors you used to fulfill those needs. This provides a wealth of information about your current leadership strengths and where—specifically—there is room for further development.

This booklet is divided into two major areas of analysis:

- **Your Leadership Style Profile**
Includes:
 - Primary Style(s)
 - Secondary Style(s)
 - Style Range
- **Your Leadership Style Adaptability**

Leadership Effectiveness & Adaptability Description

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YOUR LEADERSHIP STYLE

To develop your Leadership Profile, refer to the *LEAD* Self or *LEAD* Other instrument being processed. The first step will be to transfer the circled alternative action for each of the twelve situations from the *LEAD* instrument to the corresponding numbered situations in Graphic 1 below. Then, total the number of circled actions for each of the four vertical columns and write their sums next to "Totals."

| GRAPHIC 1 • STYLE RANGE • STYLE SELECTED | | | | | | |
|--|---------|---------|---------------|------------|---|----|
| | 1 | 2 | 3 | 4 | | |
| SITUATIONS | 1 | A | C | B | D | R1 |
| | 2 | D | A | C | B | R2 |
| | 3 | C | A | D | B | R3 |
| | 4 | B | D | A | C | R4 |
| | 5 | C | B | D | A | R1 |
| | 6 | B | D | A | C | R2 |
| | 7 | A | C | B | D | R3 |
| | 8 | C | B | D | A | R4 |
| | 9 | C | B | D | A | R1 |
| | 10 | B | D | A | C | R2 |
| | 11 | A | C | B | D | R3 |
| | 12 | C | A | D | B | R4 |
| Totals | | | | | | |
| | S1 | S2 | S3 | S4 | | |
| | Telling | Selling | Participating | Delegating | | |

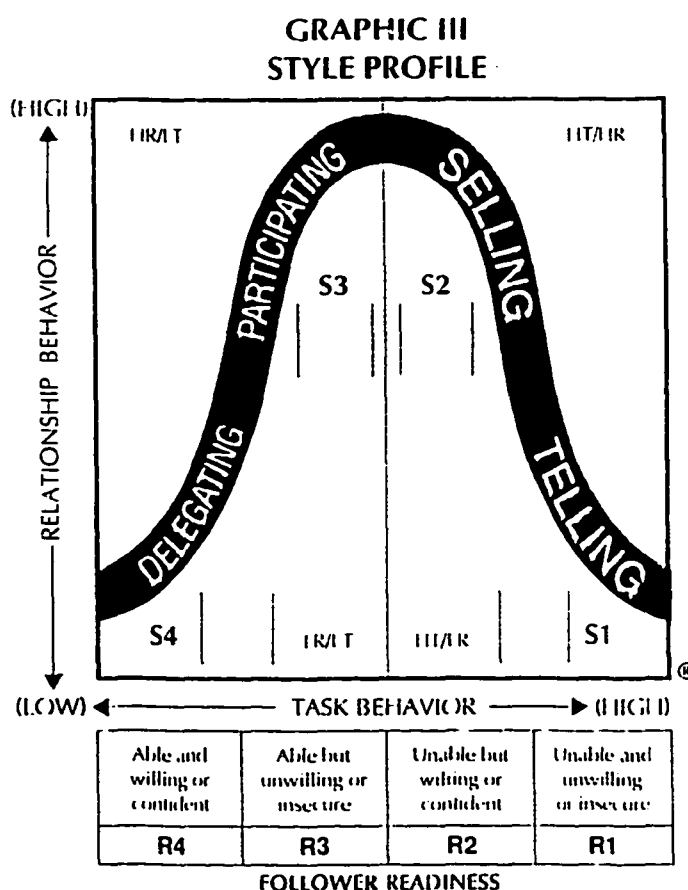
STYLE ADAPTABILITY

To determine your Leadership Style Adaptability, circle the scores in Graphic II below that correspond to the alternative action choices made for each situation in Graphic I. For example, if for Situation 1 alternative action choice C was chosen, circle 2 under column C below. Next, add the numbers in each vertical column and write their sums next to "Subtotals." Finally, add the subtotals for column A, B, C, and D to calculate "Leadership Style Adaptability" and write this number in the box provided.

| | | GRAPHIC II • STYLE ADAPTABILITY • PROBABILITY OF SUCCESS | | | |
|------------|----|--|---|---|---|
| | | A | B | C | D |
| SITUATIONS | 1 | 3 | 1 | 2 | 0 |
| | 2 | 3 | 0 | 2 | 1 |
| | 3 | 2 | 1 | 0 | 3 |
| | 4 | 2 | 0 | 3 | 1 |
| | 5 | 0 | 2 | 3 | 1 |
| | 6 | 1 | 2 | 0 | 3 |
| | 7 | 0 | 3 | 1 | 2 |
| | 8 | 3 | 1 | 0 | 2 |
| | 9 | 0 | 2 | 3 | 1 |
| | 10 | 2 | 0 | 1 | 3 |
| | 11 | 0 | 3 | 1 | 2 |
| | 12 | 1 | 3 | 0 | 2 |
| Totals | | + | + | + | = |
| | | Style Adaptability Score | | | |

STYLE PROFILE

Refer to columns (1) through (4) in Graphic I. Transfer the total for each column to the box in the corresponding quadrants in the model below, e.g., write the column (1) total in the box in the S1 quadrant, the column (2) total in the box in the S2 quadrant, etc.



Now you can interpret the results of the scoring you just completed. From this, three very important pieces of information come together to form your Leadership Style Profile:

PRIMARY STYLE

Primary style is the style that you would tend to use most frequently. The quadrant in the model above which has the greatest number of responses indicated is your primary style.

SECONDARY STYLE

Secondary, or supporting style(s) include the quadrant(s) other than your primary style quadrant--in which there are two or more responses. These styles tend to be your "back-up" styles when you are not using your primary style.

STYLE PROFILE (continued)

STYLE RANGE

Style range refers to the total number of quadrants in Graphic III in which there are two or more responses. Style range provides you a sense for how flexible you are in varying the types of behaviors you engage in when attempting to influence others.

Three or more responses in a quadrant indicate a high degree of flexibility in the use of behaviors in that quadrant. Two responses in a quadrant indicate moderate flexibility. One response in a quadrant is not statistically significant, and therefore it is difficult to predict flexibility into that style.

Style range is important in gaining insight into your ability to influence others, and having a range of styles is helpful. The key variable now becomes when to use each style.

Previously, your Leadership Style Profile indicated preferences and tendencies of leader behavior. *Style adaptability* is the degree to which you are able to vary your style *appropriately* to the readiness level of a follower in a specific situation.

In Graphic II, points are awarded for each alternative action selected in response to the twelve situations provided in the LEAD instrument. The number of points awarded is determined by how well the alternative action selected matches the situation. Thus, a "3" response indicates the "best fit." A "0" response indicates that an alternative action was selected that has a very low probability of success.

The use of a point system allows your Leadership Style Adaptability to be expressed as a score. The possible adaptability score ranges from 0 to 36. Expressing adaptability as a score allows some generalizations to be made based on numerical benchmarks.

- 30-36 Scores in this range indicate a leader with a high degree of adaptability. The leader accurately diagnoses the ability and willingness of the follower for the situation and adjusts accordingly.
- 24-29 This range reflects a moderate degree of adaptability. Scores in this range usually indicate a pronounced primary leadership style with less flexibility into the secondary styles.
- 0-23 Adaptability scores less than 23 indicates a need for self development to improve both the ability to diagnose task readiness and to use appropriate leader behaviors.

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Escondido, CA 92025
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APPENDIX C
DEMOGRAPHIC QUESTIONNAIRE

INSTRUMENT III

CODE NO. _____

DEMOGRAPHIC QUESTIONNAIRE FOR THE COMMUNICATION AND LEADERSHIP

STYLE STUDY

In order to do a complete and thorough analysis of the results of your responses on the leadership and communication style measures I need to obtain some important information about you. This information is vital to the success of this study so please answer each question. This questionnaire will be destroyed at the completion of the study and will never be associated with any person's name. The control number in the top right corner is used solely to determine if the required sample participant has returned the questionnaire. When you have completed the two assessment instruments and this demographic questionnaire please return them in the pre-stamped and pre-addressed enclosed envelope. We would like to have the completed packets completed within a week of when you receive them.

PLEASE CIRCLE YOUR ANSWER.

1. How many years have you been in education?

0 to 4

5 to 9

10 to 14

15 to 19

20 or more

2. How many years have you been an Elementary School Principal?

0 to 4

5 to 9

10 or more

3. How many years have you been a principal, other than an elementary school principal?

0 to 4

5 to 9

10 or more

. CONTINUED ON NEXT PAGE

4. Approximately how many students do you have enrolled in your school?

Less than 100

100 to 200

201 to 300

301 to 400

401 or more

5. How many full time certified teachers do you have at your school?

Indicate number_____

6. Would you say that your school is in an urban, rural or inner city urban area?

Urban

Rural

Inner City Urban

7. What area of the state is your system in?

Mountain

Piedmont

Coastal

8. In what age range would you classify yourself?

Less than 24

24 to 30

31 to 37

38 to 44

45 to 51

52 or over

CONTINUED ON NEXT PAGE

9. What is your sex?

Male

Female

10. What is your race:

Black American,

White,

American Indian,

Hispanic,

Asian,

Other (Please indicate your race _____)

COMMENTS: (You may write any comments or questions about this study here.)

Thank you very much for your time and assistance!

APPENDIX D
CHI SQUARE ANALYSIS OF LEAD-SELF
ITEM ADAPTABILITY SCORES BY SEX

Chi-Square Analysis of LEAD-Self Item Adaptability Scores by Sex

| Item | Sex | Adaptability Scores (3="best fit") | | | | Total |
|------|-------|------------------------------------|----|-------|-----|-------|
| | | 0 | 1 | 2 | 3 | |
| 1 | Men | 0 | 27 | 74 | 21 | 122 |
| | Women | 0 | 20 | 84 | 14 | 118 |
| | Total | 0 | 47 | 158 | 35 | 240 |
| | | Chi-Square=3.01 | | P=.22 | | |
| 2 | Men | 3 | 1 | 63 | 55 | 122 |
| | Women | 5 | 0 | 65 | 46 | 116 |
| | Total | 8 | 1 | 128 | 101 | 238 |
| | | Chi-Square=2.18 | | P=.53 | | |
| 3 | Men | 4 | 3 | 75 | 40 | 122 |
| | Women | 1 | 1 | 90 | 26 | 118 |
| | Total | 5 | 4 | 165 | 66 | 240 |
| | | Chi-Square=7.06 | | P=.07 | | |
| 4 | Men | 2 | 43 | 67 | 10 | 122 |
| | Women | 0 | 44 | 63 | 11 | 118 |
| | Total | 2 | 87 | 130 | 21 | 240 |
| | | Chi-Square=2.11 | | P=.54 | | |

Chi-Square Analysis of LEAD-Self Item Adaptability Scores by Sex - Continued

| Item | Sex | Adaptability Scores (3="best fit") | | | | Total |
|------|-------|------------------------------------|----|-------|-----|-------|
| | | 0 | 1 | 2 | 3 | |
| 5 | Men | 1 | 11 | 54 | 56 | 122 |
| | Women | 0 | 14 | 48 | 56 | 118 |
| | Total | 1 | 25 | 102 | 112 | 240 |
| | | Chi-Square=1.64 | | P=.65 | | |
| 6 | Men | - | 40 | - | 82 | 122 |
| | Women | - | 44 | - | 74 | 118 |
| | Total | - | 84 | - | 156 | 240 |
| | | Chi-Square=.53 | | P=.46 | | |
| 7 | Men | 4 | 32 | 1 | 85 | 122 |
| | Women | 2 | 20 | 0 | 96 | 118 |
| | Total | 6 | 52 | 1 | 181 | 240 |
| | | Chi-Square=5.04 | | P=.17 | | |
| 8 | Men | 17 | 29 | 48 | 28 | 122 |
| | Women | 20 | 28 | 37 | 32 | 117 |
| | Total | 37 | 57 | 85 | 70 | 239 |
| | | Chi-Square=1.83 | | P=.60 | | |

Chi-Square Analysis of LEAD-Self Item Adaptability Scores by Sex - Continued

| Item | Sex | Adaptability Scores (3="best fit") | | | | Total |
|------|-------|------------------------------------|----|-----|-----|-------|
| | | 0 | 1 | 2 | 3 | |
| 9 | Men | 0 | 3 | 37 | 82 | 122 |
| | Women | 0 | 3 | 32 | 83 | 118 |
| | Total | 0 | 6 | 69 | 165 | 240 |
| | | Chi-Square=.30 P=.86 | | | | |
| 10 | Men | 18 | 0 | 25 | 79 | 122 |
| | Women | 11 | 0 | 29 | 78 | 118 |
| | Total | 29 | 0 | 54 | 157 | 240 |
| | | Chi-Square=1.93 P=.38 | | | | |
| 11 | Men | 1 | 36 | 7 | 78 | 122 |
| | Women | 2 | 20 | 11 | 85 | 118 |
| | Total | 3 | 56 | 18 | 163 | 240 |
| | | Chi-Square=6.02 P=.11 | | | | |
| 12 | Men | 8 | 3 | 98 | 12 | 121 |
| | Women | 0 | 0 | 100 | 18 | 118 |
| | Total | 8 | 3 | 198 | 30 | 239 |
| | | Chi-Square=12.18 P=.007 | | | | |

APPENDIX E
COMMUNICATOR STYLE MEASURE FACTOR LOADINGS
FOR MEN AND WOMEN

COMMUNICATOR STYLE MEASURE FACTOR LOADINGS

Males

OBLIMIN ROTATION

| | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|-----|--------------|--------------|---------------|---------------|----------------|
| R8 | | | | -.68 Precise | |
| C9 | | | | -.39 Precise | |
| R15 | | | | -.77 Precise | |
| C16 | | | | -.44 Precise | |
| C37 | .30 Precise | | -.37 Cont/Arg | | |
| C11 | | | .11 Attentive | | |
| C20 | | | .21 Attentive | | -.35 Attentive |
| C39 | | | .57 Attentive | | |
| C49 | | | .70 Attentive | | |
| C13 | | | .16 Precise | | .41 Precise |
| C27 | .35 Precise | | .35 Precise | | |
| C30 | | | .42 Precise | | |
| C40 | | | .22 Precise | | |
| C18 | | | | -.31 Dramatic | |
| C22 | .43 Dramatic | | | | |
| C32 | .41 Dramatic | | | | |
| C24 | | | | | .38 Open |
| C28 | .22 Dominant | .40 Dominant | | | |
| C35 | .72 Dominant | | | | |
| C41 | .35 Dominant | | | | |
| C43 | .57 Dominant | | | | |
| C7 | | .36 ComIm | | | |
| C19 | | .41 ComIm | | | |
| C26 | | .59 ComIm | | | |
| C29 | | .42 ComIm | | | |
| C51 | | -.15 ComIm | | | |

Cont/Arg = Contentious/Argumentative; ComIm = Communicator Image

COMMUNICATOR STYLE MEASURE FACTOR LOADINGS

Males - Continued

OBLIMIN ROTATION

| | Factor 6 | Factor 7 | Factor 8 | Factor 9 | Factor 10 |
|-----|--------------|--------------|---------------|--------------|-----------|
| C3 | | | .17 Friendly | .30 Friendly | |
| C6 | | | .61 Friendly | | |
| C38 | | | .46 Friendly | | |
| C46 | | | .52 Friendly | | |
| C4 | -.68 ImpLeav | | | | |
| C5 | -.81 ImpLeav | | | | |
| C14 | -.80 ImpLeav | | | | |
| C45 | -.62 ImpLeav | | | | |
| C10 | | | | .65 Cont/Arg | |
| C36 | | | | .66 Cont/Arg | |
| C37 | | | | .41 Cont/Arg | |
| C42 | | | | .33 Cont/Arg | |
| C11 | | | .44 Attentive | | |
| C17 | | .31 Anim/Exp | | | |
| C23 | | .63 Anim/Exp | | | |
| C44 | | .38 Anim/Exp | | | |
| C47 | | .55 Anim/Exp | | | |
| C18 | | .47 Dramatic | | | |
| C22 | | .06 Dramatic | | | |
| C32 | | .38 Dramatic | | | |
| C48 | | .67 Dramatic | | | |
| O21 | | | | .63 Open | |
| C24 | | | | .33 Open | |
| C34 | | | | .64 Open | |
| C50 | | | | .74 Open | |

Cont/Arg = Contentious/Argumentative; Anim/Exp = Animated/Expressive

COMMUNICATOR STYLE MEASURE FACTOR LOADINGS

Females

OBLIMIN ROTATION

| | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|-----|--------------|-----------|--------------|---------------|-------------|
| C4 | | | | | .57 ImpLeav |
| C5 | | | | | .81 ImpLeav |
| C14 | | | | | .86 ImpLeav |
| C45 | | | | | .62 ImpLeav |
| R8 | 1.05 Relaxed | | | | |
| C9 | .46 Relaxed | | | | |
| R15 | .66 Relaxed | | | | |
| C16 | .24 Relaxed | | | | |
| C10 | | | | -.43 Cont/Arg | .34 Relaxed |
| C36 | | | | -.42 Cont/Arg | |
| C37 | | | | -.69 Cont/Arg | |
| C42 | | | | -.60 Cont/Arg | |
| C39 | | | | .30 Attentive | |
| C13 | | | | | .33 Precise |
| C17 | | | .50 Anim/Exp | | |
| C23 | | | .42 Anim/Exp | -.44 Anim/Exp | |
| C44 | | | .32 Anim/Exp | | |
| C47 | | | .73 Anim/Exp | | |
| C18 | | | .76 Dramatic | | |
| C22 | | | .26 Dramatic | | |
| C32 | | | .43 Dramatic | | |
| C48 | | | .45 Dramatic | | |
| O21 | | .58 Open | | | |
| C24 | | .12 Open | | | |
| C34 | | 1.04 Open | | | |
| C50 | | .55 Open | | | |

ImpLeav = Impression Leaving; Cont/Arg = Contentious/Argumentative; Anim/Exp = Animated/Expressive

COMMUNICATOR STYLE MEASURE FACTOR LOADINGS

Females - Continued

OBLIMIN ROTATION

| | Factor 6 | Factor 7 | Factor 8 | Factor 9 | Factor 10 |
|-----|--------------|---------------|--------------|---------------|--------------|
| C3 | | | | | .39 Friendly |
| C6 | | | | | .24 Friendly |
| C38 | | | | | .57 Friendly |
| C46 | | | | | .65 Friendly |
| C10 | | | | .30 Cont/Arg | |
| C36 | | | | | .38 Cont/Arg |
| C11 | | .16 Attentive | | | |
| C20 | | .62 Attentive | | | |
| C39 | | .67 Attentive | | | |
| C49 | | .41 Attentive | | | |
| C13 | | | | .13 Precise | |
| C27 | | | | .61 Precise | |
| C30 | | | | .26 Precise | |
| C40 | | | | .42 Precise | |
| C23 | | | | -.41 Anim/Exp | |
| C44 | .33 Anim/Exp | | | | |
| C22 | | | .35 Dramatic | | |
| C28 | .28 Dominant | | .36 Dominant | | |
| C35 | .60 Dominant | | | | |
| C41 | .29 Dominant | | | | |
| C43 | .85 Dominant | | | | |
| C7 | | | .42 ComIm | | |
| C19 | | | .45 ComIm | | |
| C26 | | | .54 ComIm | | |
| C29 | | | .53 ComIm | | |
| C51 | | | -.24 ComIm | | |

Cont/Arg = Contentious/Argumentative; Anim/Exp = Animated/Expressive; ComIm = Communicator Image

APPENDIX F
COMPARISON OF THE 10 FACTORS
FOR MEN AND WOMEN ON THE CSM

Comparisons of the Ten Factors for Men and Women on the CSM Items

Maximum-likelihood and Oblimin Rotation

| Men | Women |
|---|---|
| Factor 1 Dominant 28 35 41 43 - 22 32 27 37 | Factor 1 Relaxed 8 9 15 16 |
| Factor 2 Communication Image 7 19 26 29 51 - 28 | Factor 2 Open 21 24 34 50 |
| Factor 3 Attentive and Precise 11 20 39 49 13 27 30 40 - 37 | Factor 3 Animated Expressive and Dramatic 17 23 44 47 18 22 32 48 |
| Factor 4 Relaxed 8 9 15 16 - 18 | Factor 4 Contentious/Argumentative 10 36 37 42 - 39 23 |
| Factor 5 No CSM Group of Items 20 13 24 (Highest Loadings) | Factor 5 Impression Leaving 4 5 14 45 - 16 13 |
| Factor 6 Impression Leaving 4 5 14 45 | Factor 6 Dominant 28 35 41 43 - 44 |
| Factor 7 Animated Expressive and Dramatic 17 23 44 47 - 18 32 48 | Factor 7 Attentive 11 20 39 49 |
| Factor 8 Friendly 3 6 38 46 - 11 | Factor 8 Communication Image 7 19 26 29 51 - 22 28 |
| Factor 9 Contentious/Argumentative 10 36 37 42 - 3 | Factor 9 Precise 13 27 30 40 - 10 23 |
| Factor 10 Open 21 24 34 50 | Factor 10 Friendly 3 6 38 46 - 36 |

APPENDIX G
LETTERS OF CONSENT



LEADERSHIP
STUDIES

August 31, 1992

Daniel B. Watkins
School Psychologist
and Doctoral Student in Educational
Administration and Leadership

Dear Mr. Watkins,

Thank you for your expressed interest in using the Lead Instrument in your research. This happens frequently enough that we have made arrangements with our distributor to easily assist you. You may also include a copy of the Lead Self as an appendix to your dissertation as long as our copyright marks and name are included.

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Should you have additional questions feel free to call me directly.

Sincerely,

Marcus Favola
Customer Support



Dr Robert Norton
 Professor and Head of School
 Communication and Organisational Studies
 (07) 864 2052 Fax (07) 864 1810



Faculty of Business
Queensland University of Technology

2 George Street, QUT City (Opp. City Hall) Brisbane Q 4001, Australia
 Telephone: (07) 864 2111 Fax: (07) 864 1513

Dear Daniel,
 As for it. You have my
 permission to use the
 CSM. Your research
 sounds interesting. Good
 luck. Let me know
 when you find something.
 Robert Norton

Faculty of Business
Queensland University of Technology

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